### APPRENTICESHIP TRAINING IN NEW JERSEY

# DIRECTORY OF INFORMATION AND RESOURCES

### Prepared by:

STATE OF NEW JERSEY
DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF BUSINESS SERVICES ~ OFFICE OF WORKFORCE INITIATIVES

JON S. CORZINE Governor DAVID J. SOCOLOW Commissioner

### APPRENTICESHIP POLICY COMMITTEE

### **Partnership**

**Apprenticeship Training, Employer, and Labor Services United States Department of Labor** 

New Jersey Department of Labor and Workforce Development Workforce New Jersey

**New Jersey Department of Education Division of Academic Programs & Assessment** 

**New Jersey State AFL-CIO** 

### TABLE OF CONTENTS

APPRENTICESHIP TRAINING IN NEW JERSEY	1
What is an Apprenticeship?	1
What is a Registered Apprenticeshin Program?	1
What is a Registered Apprenticeship Program?	
Who administers Apprenticeship Training in New Jersey?	1
What is an Apprenticeable occupation?	
What is an Apprenticeable occupation?	
How long are Apprenticeship Programs?	2
How is On-The-Tob Training conducted?	3
What is Related Classroom Instruction?	3
How long are Apprenticeship Programs? How is On-The-Job Training conducted? What is Related Classroom Instruction? Who provides the Related Classroom Instruction?	3
Do Apprentices receive wages?  What about credentials?	4
What about credentials?	4
Who are served?	/
Who are served: What are the entrance requirements? How to apply Veterans' benefits	5
How to apply	5
Veterans' benefits	5
Authorization	6
Apprenticeships in High SchoolThe Registered Apprenticeship Incentive Program	<u>6</u>
The Registered Apprenticeship Incentive Program	
NJ Place	
THE ECONOMIC VALUE OF APPRENTICESHIP	c
THE ECONOMIC VALUE OF APPRENTICESHIP	č
The economic value of Apprenticeship to employers	c
Employer benefits	C
Who else benefits?	1 <i>1</i>
WIRO CISC DEHERIS:	10
DEFINITIONS OF TERMS	11
Apprentice	11
Apprenticeship Agreement	
Apprenticeship Committee/Training Committee	11
Apprenticeship Program	11
Employer	11
Cancellation	11
Certification	11
County Apprenticeship Coordinator	12
Certificates of completion	12
Cooperative Vocational Education	12
Federal Committee on Apprenticeship	12
Joint Apprenticeship/Training Committee: (JAC/JATC)	
New Jersey Apprenticeship Policy Committee	12
Non-Traditional Job	13
Registration of an Apprenticeship Program	
Registration Agency	
Registration of an Apprenticeship Agreement	
Related Classroom Instruction	13
Sponsor	13
YOUTH TRANSITIONS TO WORK PARTNERSHIP PROGRAM	1.4
1001H TRANSITIONS TO WORK FARTNERSHIF FROUKAM	14
OTHER RESOURCES	18
OTHER RESOURCES	10
APPRENTICESHIP TRAINING DIRECTORY	22
FEDERAL APPRENTICESHIP AND TRAINING DIRECTORY	25
State Director	25
State DirectorApprenticeship and Training Representatives	25
APPENDIX 1: Apprenticeable Occupations	

### APPRENTICESHIP TRAINING IN NEW JERSEY

#### WHAT IS AN APPRENTICESHIP?

An "apprenticeship" is a relationship between an employer and an employee during which the employee, or apprentice, learns a highly skilled occupation. A "sponsor" operates apprenticeship training programs on a voluntary basis. A sponsor can be an individual employer or an association of employers. When a union is present, the sponsor will be a "joint apprenticeship committee" (JAC), which is made up of both employer and union representatives. The sponsor plans, administers, and pays for the apprenticeship training program.

#### WHAT IS A REGISTERED APPRENTICESHIP PROGRAM?

Apprenticeship programs are commonly registered with the federal government. These are called "registered apprenticeship programs." Registered apprenticeship programs meet federally approved standards relating to job duties, related classroom instruction, wages, and safety and health conditions. These standards are contained in the federal legislation known as the Labor Standards for the Registration of Apprenticeship Programs (Title 29 CFR Part 29) and the Equal Employment Opportunity in Apprenticeship and Training (Title 29 CFR Part 30). The Office of Apprenticeship Training, Employer and Labor Services (OATELS), which is part of the United States Department of Labor, is the national administrative agency that carries out the mandates of the law. This document refers to registered apprenticeship programs only.

#### NEW JERSEY'S WORKFORCE DELIVERY SYSTEM: ONE-STOP CAREER CENTERS

New Jersey's One-Stop Career Center system is designed to fundamentally change the way workforce readiness services are delivered to employers, workers and job seekers. One-Stop Career Centers will integrate services sponsored by disparate agencies, provide for customer choice and universal access and be performance driven. The registered apprenticeship program is part of this system.

#### WHO ADMINISTRATES APPRENTICESHIP TRAINING IN NEW JERSEY?

In New Jersey, the United States Department of Labor, Office of Apprenticeship Training, Employer and Labor Services (OATELS) and the New Jersey Department of Labor and Workforce Development (NJLWD) work together for the joint registration and administration of the New Jersey Apprenticeship Program. New Jersey's vocational schools and institutes are also partners in New Jersey's Apprenticeship Program. Each vocational school district employs a County Apprenticeship Coordinator who is responsible for working directly with local sponsors in maintaining their apprenticeship training programs. The county apprenticeship coordinator

also helps new sponsors to set up new apprenticeship training programs. (A list of county apprenticeship coordinators and other apprenticeship professionals may be found on Page 21.)

#### WHAT IS AN APPRENTICEABLE OCCUPATION (SEE APPENDIX 1)?

An "apprenticeable occupation" is a skilled trade or technical occupation that possesses all of the following characteristics:

- a) It is clearly identified and commonly recognized throughout an industry;
- b) It is customarily learned in a practical way through a structured, systematic program of on-the-job supervised training;
- c) It involves manual, mechanical, or technical skills and knowledge that require a minimum of 2,000 hours of on-the-job work experience (more hours for more complex occupations); and,
- d) It requires related classroom instruction to supplement the on-the-job training.

#### HOW MANY OCCUPATIONS HAVE APPRENTICESHIP STANDARDS?

Nationwide, there are now registered apprenticeship programs in more than nine hundred craft, skilled, and technical occupations. A few of the traditional skilled trades in which apprentices are being trained are automotive technician, baker, bricklayer, carpenter, electrician, machinist, maintenance mechanic, operating engineer, painter, roofer, sheet metal worker, structural steel worker, and tool and die maker. However, there are many other skilled trades and technical occupations that have apprenticeship programs. Examples of these occupations include but are not limited to: computer programmer, computer service mechanic, dairy technologist, dental assistant, drafter, electronics technician, environment analyst, fire fighter, horticulturist, insurance claims adjuster, laboratory technician, land surveyor, office administrator, optical technician, radiographer, telecommunications technician, and wastewater treatment plant operator.

#### HOW LONG ARE APPRENTICESHIP PROGRAMS?

The length of an apprenticeship program depends on the complexity of the occupation. Apprenticeship programs range from one year to six years, but the majority are four years in length. During the program, the apprentice receives both structured "on-the-job training" (OJT) and "related classroom instruction." For each year of the apprenticeship, the apprentice will receive 2,000 hours of on-the-job training and a minimum of 144 hours of related classroom instruction. For example, an apprentice enrolled in a four-year apprenticeship program will receive a total of 8,000 hours of OJT by the conclusion of the apprenticeship. The apprentice will also receive a total of 576 hours of related classroom instruction, or, 144 hours of related classroom instruction for each year of the four years. An apprentice in a three-year

apprenticeship program will receive a total of 6,000 hours of OJT training and at least 432 hours of related classroom instruction.

#### HOW IS ON-THE-JOB TRAINING CONDUCTED?

OJT is structured around a "work process." A work process is an outline of the skills and competencies of an occupation that the apprentice must master during the apprenticeship. OATELS, employers, unions, and the county apprenticeship coordinators develop work processes. They are approved by (OATELS) based on national industry surveys to ensure that the work processes accurately reflect industry standards. Sponsors are responsible for structuring the OJT component of their apprenticeship program based on the work process for that occupation. A work process may be modified to meet individual employer needs, but only under the guidance and approval of OATELS. Although modifications are allowed for individual employers, the resulting work process must provide OJT instruction that substantially reflects the national standards for that occupation.

An experienced worker known as a "journey worker" supervises OJT, who acts as a mentor for the apprentices on the job. A journey worker is a skilled worker in the apprenticeable occupation. The sponsor appoints journey worker mentors. During the OJT, the apprentice works under the supervision of the journey worker. Under the journey worker's guidance, the apprentice performs increasingly complex tasks with less and less immediate supervision, as the apprentice gradually masters the skills and competencies of the occupation.

#### WHAT IS RELATED CLASSROOM INSTRUCTION?

The related classroom instruction component of an apprenticeship program supports the skills that the apprentices must master that are identified on the work process. It provides the theoretical and technical knowledge and the techniques of the occupation that the apprentice must master to become competent in that occupation. It also includes detailed discussions of how typical tasks are performed and the safety precautions that must be taken. Classes require the study of trade manuals and educational materials, and are often taught by experienced journey workers, other skilled persons, or certified teachers. Classes can be scheduled during the day, evenings, or on weekends. However, most apprenticeship programs in New Jersey conduct the related classroom instruction during weekday evenings because apprentices are full-time employees. The county apprenticeship coordinators help sponsors to develop and secure the related classroom instruction.

#### WHO PROVIDES THE RELATED CLASSROOM INSTRUCTION?

Related classroom instruction may take place through a variety of delivery systems depending on the requirements of the program. Related classroom delivery systems may include, but are not limited to county vocational schools, in-plant instruction, college-related instruction, industry schools, or a combination of the above. The county apprenticeship coordinators assist sponsors to research, develop, approve, and implement the related classroom instruction of their apprenticeship programs.

#### DO APPRENTICES RECEIVE WAGES?

Apprentices in registered apprenticeship programs earn while they learn because they are full-time employees during their apprenticeship. Generally, apprentices start at fifty percent of the wage an employer pays an experienced worker in that occupation; however, the apprentice cannot receive less than the state minimum wage. The apprentices' wages are increased periodically throughout the apprenticeship to reflect their mastery of the occupational skills and their ability to work independently. The sponsor increases apprentices' wages by periods of time, such as every six months, or once a year, for each year of the apprenticeship program. These periodic wage increases are known as a "wage schedule." In developing and implementing a wage schedule, the sponsor agrees to grant periodic wage increments if the apprentices are performing satisfactorily. It is important to note that sponsors develop the apprentice wage schedule based on their own personnel procedures. OATELS does not dictate apprentice wages; instead, OATELS provides technical assistance to the sponsors to develop the wage schedule for their individual apprenticeship program. Where there is a collective bargaining agreement in force, apprentice wage schedules must follow the provisions of the collective bargaining agreement.

#### WHAT ABOUT CREDENTIALS?

Upon successful completion of both on-the-job training and the related classroom instruction, graduating apprentices in New Jersey receive two "Certificates of Completion of Apprenticeship Training." Graduating apprentices receive one Certificate of Completion from OATELS, indicating that the apprentice has successfully completed the OJT training component of the apprenticeship program. They also receive a second Certificate of Completion from the NJLWD, indicating the apprentice has successfully completed the related classroom instruction component of the apprenticeship. Certificates of Completion are "portable," meaning that they are recognized throughout an industry, because registered apprenticeship training programs are based on nationally recognized industry standards.

#### WHO ARE SERVED?

Both men and women at least sixteen years old are eligible to apply. However, most sponsors require that applicants be at least eighteen years old because insurance policies frequently cover only workers eighteen years and over, unless under age applicants are enrolled in a specific educational program that provides exceptions. Examples of exceptions are New Jersey's cooperative vocational education programs and registered apprenticeship programs implemented in high school. The New Jersey Department of Labor and Workforce Development established a

special child labor section to assist employers, unions, and schools with these child labor law exceptions. (See Page 18.)

#### WHAT ARE THE ENTRANCE REQUIREMENTS?

Generally, apprenticeship sponsors look for prospective apprentices who have the mechanical and mental abilities to master the techniques and technology of the occupation. Therefore, sponsors set "qualification standards" that applicants must meet. Federal regulations require that apprentices be selected on the basis of objective and specific standards. Applicants must be treated equally during the selection process without regard to race, religion, color, sex, or national origin. OATELS assists sponsors in developing apprenticeship program qualification standards.

Requirements vary from occupation to occupation, program to program, and plan to plan. For example, an applicant may be required to pass an aptitude test, hold a high school diploma, meet an age requirement, pass occupationally essential physical requirements, have acceptable school grades, have work experience in a similar field, and be interviewed. Other programs may have more specific requirements, such as a driver's license or the ability to work with a team. Some policies may have a maximum age requirement, and these are subject to provisions of individual state laws on age discrimination.

Federal standards do not require age limits. Where such limits do exist, the maximum age for veterans is higher because at least part of their time in the service can be subtracted from their age. The minimum level of education required also varies. Most programs require entrants to have a high school diploma or its equivalent. Despite the level of education required, apprentices need a firm grounding in reading, writing, and mathematics - all basic to skilled craft and technical occupations.

#### HOW TO APPLY

Individuals, businesses, and labor organizations interested in learning more about the apprentice training system, about opportunities for enrollment into an apprenticeship program, or about developing an apprenticeship training program, may do so by contacting either the New Jersey Office of the United States Department of Labor, Apprenticeship Training, Employer and Labor Services; the New Jersey Department of Labor and Workforce Development (NJLWD); or the county apprenticeship coordinator at your county vocational school. (See Page 21).

#### **VETERANS' BENEFITS**

Veterans and dependents of veterans may qualify for benefits while enrolled in a registered apprenticeship program and are encouraged to contact the Veterans Education and Training Office. (See Page 18).

#### **AUTHORIZATION**

Apprenticeship training programs are authorized by the **National Apprenticeship Act of 1937** (Fitzgerald Act), PL 75-308. In New Jersey, approval of apprentice programs and registration of apprenticeship program standards is conducted by the United States Department of Labor, Apprenticeship Training, Employer and Labor Services and the New Jersey Department of Labor and Workforce Development (NJLWD).

#### APPRENTICESHIPS IN HIGH SCHOOL

New Jersey high school students who are enrolled in an approved occupational education program may be eligible to enroll into a registered apprenticeship program while still in high school. Students must have both school and employer approval to enroll in an apprenticeship program. Students will attend school and work part-time as apprentices. Upon graduation, they are expected to continue with their sponsor as full-time apprentices, eventually reaching journey worker status. Schools, students, parents, and employers interested in exploring apprenticeships for students should contact their county apprenticeship coordinator.

The Youth Transitions to Work Partnership Program is a competitive grant program that encourages high schools to develop the above-mentioned transitions between occupational education and apprenticeship programs. The New Jersey School-to-Career and College Initiative also promotes transitions from high school to registered apprenticeship programs. See Other Resources for more information about the Youth Transitions to Work Partnership Program. (See Pg. 13).

High school students who participate in a cooperative vocational education program may be eligible to have their secondary school vocational education and work site learning applied as advance standing credit for an apprenticeship training program upon graduation from high school. The county apprenticeship coordinator will evaluate the high school experience for possible credit towards the OJT and related classroom instruction components of the apprenticeship training program, with the sponsor's consent. High school cooperative education teachers, vocational teachers, students, employers and unions interested in learning more about such opportunities should contact their county apprenticeship coordinator. (See Page 21.)

#### The Registered Apprenticeship Incentive Program

Financial assistance is available for small and mid-size **manufacturing** employers with up to 400 employees to upgrade the skills of employees working for a manufacturing firm. The Registered Apprenticeship Incentive Program is administered by the New Jersey Department of Labor and Workforce Development in conjunction with the United States Apprenticeship Training, Employer and Labor Services; it also links the New Jersey Customized Training Program and the federal Registered Apprenticeship Program. The program has a simple grant

application process for employers to apply for financial incentives for sponsoring registered apprentices.

The program provides one-time financial incentives to employers of \$5,000 for each registered apprentice sponsored as of January 1, 2006. The \$5,000 employer incentive will be paid out in two payments: the first payment of \$2,500 will be issued after the apprentice completes 26 weeks of employment as an apprentice; the second payment of \$2,500 will be issued after the apprentice completes 52 weeks of employment as an apprentice.

The purposes of the program are to:

- Offset for the employer such apprenticeship training related costs as on-the-job training, classroom instruction, supervision by a journey person, or remediation of basic skills.
- Assist employers in establishing registered apprenticeship training opportunities for employees through an established network of Bureau of Apprenticeship & Training Area Representatives and local County Apprenticeship Coordinators.

For more program information contact:

New Jersey Department of Labor and Workforce Development Division of Business Services ~ PO Box 933 Trenton, New Jersey 08625 (Telephone: 609 984-3519)

#### NJ PATHWAYS LEADING APPRENTICES TO A COLLEGE EDUCATION (NJ PLACE)

New Jersey's community colleges, organized labor and several New Jersey state agencies have developed a statewide model to award college credit for registered apprenticeships in the building and construction trades.

New Jersey Pathways Leading Apprentices to a College Education (NJ PLACE) creates a pathway connecting college-level learning in local union apprenticeship training programs to degree programs in New Jersey's community colleges and senior colleges and universities. Participating trades include:

- International Association of Bridge, Structural, Ornamental, and Reinforcing Ironworkers District Council of Northern New Jersey;
- International Association of Heat and Frost Insulators and Asbestos Workers;
- International Brotherhood of Electrical Workers;
- NJ Carpenters Fund;
- Operating Engineers;
- UA Air Conditioning and Refrigeration; and,
- UA Plumbers and Pipe Fitters.

For more information, please call Maureen King, NJ PLACE Coordinator, at (609) 392-3434, or send email to mking@njccc.org.

#### THE ECONOMIC VALUE OF APPRENTICESHIP

#### THE ECONOMIC VALUE OF APPRENTICESHIP TO EMPLOYERS

The traditional model of apprenticeship has remained relatively constant throughout history. The acquisition of skilled training through apprenticeship has benefited many influences and is still recognized as the most effective system of preparing workers for the demanding tasks of our industrial, technological and knowledge-based economy.

With the approach of a new century, the need for apprenticeship training becomes even more critical to New Jersey's continued growth. Analysis of available research suggests that shortages in the skilled labor force will continue well into the future, with most new jobs requiring that workers receive two or more years of technical training after high school. Therefore, as we continue into the twenty-first century, the industrial and business community must remain committed to promoting apprenticeship training in New Jersey in order to protect and preserve New Jersey's economic and technological future.

New Jersey is unique with its partnership of state and federal agencies, all bringing strong commitments to skilled training that impact on our State's economic vitality. The common goals of this partnership are a well-trained and skilled workforce, as well as developing programs to address the future concerns of New Jersey's employers. In fact, this system currently produces skilled workers who are not only prepared to function in today's state-of-the-art technologies, but who are also trained to anticipate, accept, and adapt to the new and constantly changing base of technology. Indeed, the concept of apprenticeship training will continue to evolve, adapting where necessary, to encompass not only the new and emerging technologies and occupations, but the changing composition of New Jersey's skilled labor force, as well. The emphasis now and for the future is to provide training opportunities to all individuals while working closely with employers in the public and private sectors. New Jersey will ultimately benefit the most from a quality apprenticeship program, culminating in well trained, skilled, and adaptable workers.

#### **EMPLOYER BENEFITS**

Apprenticeship training offers many advantages to employers and our economy in general. By sponsoring qualified men, women, and youth in registered apprenticeship training programs, employers are able to develop and maintain a highly skilled workforce which has "learned how to learn" and which is well prepared to adapt to an ever changing employment and economic environment. Because apprentices have received both on-the-job training and related classroom instruction, they have both the technical skills and the theoretical background knowledge of their occupation, making them much more able and ready to adapt to the fast-paced, ever changing work environment that is the hallmark of today's global economy.

- Employers participate as apprenticeship sponsors on a no-cost basis other than the wages of their apprentices, who are full-time employees. As a sponsor, the employer may pay classroom instruction, but it is not a requirement.
- Employers benefit from increased productivity from the apprentice as he/she progresses through the program.
- Employers benefit by having a structured work process with established benchmarks for success in skill acquisition process with which to train employees on-the-job; and that utilizes a progressive wage scale throughout the program to reward apprentices as they acquire new skills and/or perfect others.
- Employers benefit through the use of trained apprentices who are more versatile and better able to solve work-related problems than untrained workers.
- Employers, by virtue of an apprenticeship program, develop good employee relations, which helps to reduce absenteeism and employee turnover.
- Employers benefit through the formal agreement outlining the duties and responsibilities of the employer and apprentices to conduct and complete the apprenticeship program. An apprenticeship agreement between the employee/sponsor outlines the apprenticeship training program standards, the employer receives a Certificate of Approval for Apprenticeship Training and the graduating apprentices receives a Certificate of Completion of Trades Trading, which is recognizable throughout industry. All of these documents are issued and recognized by the USDOL-OATELS and the NJLWD.
- Employers are able to train workers for complex occupations by the transfer of relevant skills from journey workers to apprentices following nationally recognized training standards, with minimal governmental support and oversight.

#### WHO ELSE BENEFITS?

 Apprentices contribute to the economy by paying state and federal taxes on wages earned through this training program. New Jersey's economy benefits directly as apprentices spend money in their local municipalities by purchasing goods and services in the community where they reside.

- As a result of the progressive wage scale, individual apprentices gain in increased spending power and therefore enjoy a higher living standard as they acquire journey worker status.
- The desire for additional training and education beyond completion of apprenticeship is fostered by the program, thereby enabling journey workers to advance in career ladders as they pursue lifelong learning.

#### **DEFINITIONS OF TERMS**

The following definitions are from the Office of the Secretary of Labor: 29 CFR Subtitle A (7-1-90 Edition) Part 29 - Labor Standards for the Registration of Apprenticeship Programs. Modifications for New Jersey's programs are indicated with the reference "in New Jersey."

**APPRENTICE** - shall mean a worker at least sixteen years of age, except where a higher minimum age standard is otherwise fixed by law, who is employed to learn a skilled trade as defined in Section 29.4 under standards of apprenticeship fulfilling the requirements of Section 29.5.

**APPRENTICESHIP AGREEMENT** - shall mean a written agreement between an apprentice and either his or her employer, or an apprenticeship committee acting as agent for employer(s), which agreement contains the terms and conditions of the employment and training of the apprentice.

**APPRENTICESHIP COMMITTEE/TRAINING COMMITTEE -** shall mean those persons designated to act for it in the administration of the program. A program may be "joint," i.e., it is composed of an equal number of representatives of the employer(s) and of the employees represented by a bona fide collective bargaining agent(s) and has been established to conduct, operate, or administer an apprenticeship program and enter into apprenticeship agreements with apprentices. A committee may be "unilateral" or "non-joint" and shall mean a program sponsor in which a bona fide collective bargaining agent is not a participant.

**APPRENTICESHIP PROGRAM** - shall mean a plan containing all terms and conditions for the qualification, recruitment, selection, employment, and training of apprentices, including such matters as the requirement for written apprenticeship agreement.

**EMPLOYER** - shall mean any person or organization employing an apprentice whether such person or organization is a party to an apprenticeship agreement with the apprentice.

**CANCELLATION** - shall mean the termination of the registration or approval status of a program at the request of the sponsor or termination of an apprenticeship agreement at the request of the apprentice.

**CERTIFICATION** - shall mean written approval by the United States Department of Labor, Apprenticeship Training, Employer and Labor Services, of a set of apprenticeship standards developed by a national committee or organization, joint or unilateral, for policy or guideline use by local affiliates, as substantially conforming to the standards of apprenticeship set forth in Section 29.5.

**COUNTY APPRENTICESHIP COORDINATOR** - In New Jersey, each vocational school district has in its employ a county apprenticeship coordinator, who carries out all local apprenticeship activities for that county, in cooperation with the New Jersey Department of Labor and Workforce Development and the United States Department of Labor, Apprenticeship Training, Employer and Labor Services.

**CERTIFICATES OF COMPLETION** - The issuing of two Certificates of Completion in New Jersey evidences successful completion of apprenticeship. One Certificate of Completion of Apprenticeship is issued to the graduating apprentice from the United States Department of Labor, Apprenticeship Training, Employer and Labor Services, recognizing the successful completion of the on-the-job training. The other Certificate of Completion is issued by the New Jersey Department of Labor and Workforce Development, recognizing the successful completion of the apprentice's related classroom instruction.

COOPERATIVE VOCATIONAL EDUCATION - The U. S. Department of Education and the NJ State Board of Education recognize high school cooperative vocational education programs. Cooperative vocational education combines related classroom instruction and supervised, structured work site experiences. Related classroom instruction develops competencies in each of the following: areas that are occupationally-general and needed by all workers; areas that are industry-specific and needed by all workers in the industry; areas that are occupationally-specific and needed by workers of a specific occupation only; and areas that are training site-specific and needed by individual pupils in their specific place of employment only. Students can earn a maximum of 15 high school credits and one final grade shall be earned in a 10-month period (September through June) for satisfactory completion of the combined on-thejob training and related instruction. Because the related classroom instruction and work site training components of cooperative vocational education programs mirror registered apprenticeship programs, arrangements can be made between the school district, an employer, NJDOE, NJLWD and OATELS to award advance standing credit towards an apprenticeship program for a successfully completed cooperative vocational education program. Contact your County Apprenticeship Coordinator for details.

**FEDERAL COMMITTEE ON APPRENTICESHIP** - The federal Committee on Apprenticeship (FCA) is established by charter to advise the United States Department of Labor on matters pertaining to apprenticeship and training in the United States. The FCA is a bipartisan committee comprised of representatives of labor, employers, educators, and others.

JOINT APPRENTICESHIP/TRAINING COMMITTEE: (JAC/JATC) See Apprenticeship Committee.

**NEW JERSEY APPRENTICESHIP POLICY COMMITTEE:** In New Jersey, the Committee was established in July 1992 through a joint agreement made between the United States Department of Labor, Apprenticeship Training, Employer and Labor Services, the New Jersey Department of Labor and Workforce Development, Employment and Training and the New Jersey Department of Education, Office of Vocational-Technical, Career and Adult Programs. The mission of the Apprenticeship Policy Committee is to make policy

recommendations and to provide general guidance for apprenticeship initiatives in New Jersey. In 1993, the Apprenticeship Policy Committee expanded to include representation from the New Jersey State AFL-CIO to administer the Youth Transitions to Work Partnership Program, which is New Jersey's state-funded, school-to-registered apprenticeship program.

**NON-TRADITIONAL JOB** - Non-traditional jobs are those in which 75% or more of jobholders are of the other sex.

**REGISTRATION OF AN APPRENTICESHIP PROGRAM** - shall mean the acceptance and recording of such program by the United States Department of Labor, Apprenticeship Training, Employer and Labor Services, as meeting the basic standards and requirements of the United States Department of Labor for approval of such program for federal purposes. A Certificate of Registration or other written indicia evidences approval. In New Jersey, apprenticeship programs are jointly registered and administered by the New Jersey State Office of the United States Department of Labor, Office of Apprenticeship Training, Employer and Labor Services (OATELS), and the New Jersey Department of Labor and Workforce Development (NJLWD) through an agreement.

**REGISTRATION AGENCY** - In New Jersey, this shall mean the New Jersey State Office of the United States Department of Labor, Office of Apprenticeship Training, Employer and Labor Services (OATELS) and the New Jersey Department of Labor and Workforce Development (NJLWD).

**REGISTRATION OF AN APPRENTICESHIP AGREEMENT** - In New Jersey, this shall mean the joint acceptance and recording thereof by the New Jersey State Office of the United States Department of Labor, Apprenticeship Training, Employer and Labor Services and the New Jersey Department of Labor and Workforce Development (NJLWD), as evidence of the participation of the apprentice in a particular registered apprenticeship program.

**RELATED CLASSROOM INSTRUCTION** - shall mean an organized and systematic form of instruction designed to provide the apprentice with knowledge of the theoretical and technical subjects related to the apprenticeable occupation.

**SPONSOR** - shall mean any person, association, committee, or organization operating an apprenticeship program, and in whose name the program is (or is to be) registered or approved.

The Youth Transitions to Work Partnership Program was established in 1993 by the New Jersey State Legislature to encourage New Jersey employers and unions with jobs and careers in high-skill, high-wage, labor demand occupations to establish and expand registered apprenticeship programs as their system of training for those jobs.

The Act seeks to encourage employers and unions to recruit youth for their registered apprenticeship programs by developing a pool of well prepared, technically sophisticated youth who are "entry-level ready" for enrollment into apprenticeship training. The Act also seeks to establish and expand professional development opportunities for front line workers who complete registered apprenticeship programs by establishing career ladders between high schools, registered apprenticeship programs and postsecondary institutions, thereby encouraging youth to complete high school and to pursue careers in skilled trades and technical occupations. The Act funds a competitive grant program that provides funds to local partnerships of employers, unions, schools and postsecondary institutions to carry out the goals and objectives of the legislation.

Grants awarded to local partnerships provide them with opportunities to establish local, schoolto-registered apprenticeship model programs. Employers and unions interact with secondary and postsecondary schools to develop structured transitions between high schools, apprenticeship programs, and related collegiate programs. Within these activities, local partnerships develop industry-verified curricula for occupational education programs that include the following: enhanced applied academics; program performance measures and standards based on industryverified exit exams; flexible student scheduling to provide opportunities for youth to participate in work-based learning experiences; and student support services to remove barriers that prohibit both in-school and out-of-school youth from participating in local grant programs. Local partnerships also establish mentor training, employability skills programs, OSHA training, and other activities to help make graduating students entry-level ready for registered apprenticeship programs in high-skill, high-wage, labor demand occupations. Finally, local partnerships develop linkages between the high school occupational education programs and registered apprenticeship programs, and develop linkages between registered apprenticeship programs and related professional degree programs, to ensure a smooth transition from high school to apprenticeship training, and from apprenticeship training to related professional degree programs.

Outcomes of the local partnership activities are the establishment of career ladders for those who enter registered apprenticeship programs, thereby encouraging youth to complete high school and pursue careers in the skilled trades and technical occupations, provide career advancement opportunities for front line workers already employed in those occupations and, finally, create a pool of skilled workers for New Jersey industries.

For more information, contact:

#### **New Jersey Department of Labor and Workforce Development**

Division of Business Services P. O. Box 933 Trenton, NJ 0862-0933

Telephone: (609) 984-3519

### **New Jersey State AFL-CIO**

Education and Training Coordinator 106 West State Street Trenton, New Jersey 08608 Telephone: (609) 989-8730

### Youth Transitions to Work Partnership Program Fiscal Year 2006 Grantees

Burlington County Institute of Technology Fred Aiken, YTTW Coordinator Westampton Campus 695 Woodlane Road Mount Holly, New Jersey 08060-9414 Telephone: (609) 654-0200 Ext. 335 Occupational Area: Information Technology (IT)

Camden County Technical Schools John Moore, YTTW Coordinator 343 Berlin Cross Keys Road Sicklerville, New Jersey 08081-4000 Telephone: (856) 767-7000 Ext. 5299 Occupational Area: Plumbing/HVAC

Communications Workers of America Harry Litwack, YTTW Coordinator 1030 St. Georges Avenue Avenel, New Jersey 07001-1390 Telephone: (732) 271-2401 Occupational Area: Office System Technologies

Construction Industry Advancement Program of New Jersey Dr. M. Lee Pisauro, YTTW Coordinator P.O. Box 6553 Edison, New Jersey 08818-6553 Telephone: (732) 738-8636 Occupational Area: Laborers, Ironworkers, Operating Engineers

Gloucester County College Randee Davidson, YTTW Coordinator 1400 Tanyard Road Sewell, New Jersey 08080 (856) 384-8511 Occupational Area: Ironworkers Hotel Employees Restaurant Employees (H.E.R.E.) Local 54 Audrey Weldon, YTTW Coordinator 203-205 N. Sovereign Avenue Atlantic City, New Jersey 08401 Telephone: (609) 344-5400 Ext. 117 Occupational Area: Baking

International Brotherhood of Electrical Workers Local 164
Robert Sebrowski, YTTW Coordinator 205 Robin Road ~ Suite 315
Paramus, New Jersey 07652
Telephone: (201) 265-1700
Occupational Area: Electrician

Monmouth County Vocational School District James Johnson, YTTW Coordinator 4000 Kozloski Road ~ P. O. Box 5033 Freehold, New Jersey 07728-5033 Telephone: (732) 431-7945 Occupational Area: Law Enforcement

New Jersey Building and Construction Trades Council Frank "Butch" Wade, YTTW Coordinator 77 Brant Avenue ~ Suite 405 Clark, New Jersey 07066 Telephone: (732) 499-0100 Occupational Area: General Construction Trades

New Jersey Carpenters Training Center David Cunniff, YTTW Coordinator 3300 White Horse Pike Mullica Township, New Jersey 08037 Telephone: (609) 704-9789 Occupational Area: Carpentry Plumbers Union Local 24 Ralph Russomano, YTTW Coordinator 986 South Springfield Avenue Springfield, New Jersey 07081 Telephone: (973) 912-0092 Ext. 12 Occupational Area: Plumbing

Retail, Wholesale & Department Store Union - Local 108 Ira Stern, YTTW Coordinator 1576 Springfield Avenue Maplewood, New Jersey 07040 Telephone: (973) 762-1225

Occupational Area: Automotive Trades

Salem County Vocational School Brenda Hecker, YTTW Coordinator Box 350 Woodstown, New Jersey 08098-0350 Telephone: (856) 769-0101 Ext. 264 Occupational Area: Automotive and Allied Health Services

Union County Vocational Technical Schools Deborah Rockafellow, YTTW Coordinator 1776 Raritan Road Scotch Plains, New Jersey 07076 Telephone: (908) 889-8288 Ext. 371 Occupational Area: Medical Assistant

Union County Vocational Technical Schools Lisa Tauscher, YTTW Coordinator 1776 Raritan Road Scotch Plains, New Jersey 07076 Telephone: (908) 889-8288 Ext. 372 Occupational Area: Carpentry

#### OTHER RESOURCES

**Adult Education and Literacy** - this unit sponsors programs offering free education in adult literacy, English as a second language (ESL), and GED preparation. For employers and unions whose workforce have literacy needs, please contact:

New Jersey Department of Labor and Workforce Development Division of Business Services P. O. Box 933 Trenton, New Jersey 08625-0933 Telephone: (609) 633-1360

Americans with Disabilities Act (ADA). For information please contact:

U.S. Equal Employment Opportunity Commission 1801 L Street
Washington, D.C. 20507
Telephone: (800) 669-4000

**Child Labor Office -** This office specializes in child labor questions pertaining to work site placement of youth under the age of 18, both in school and out-of-school.

New Jersey Department of Labor and Workforce Development Division of Wage and Hour Compliance P. O. Box 389 Trenton, New Jersey 08625-0389 Telephone: (609) 292-2305

#### Corrections, Department of

Educational Coordinator P. O. Box 863

Trenton, New Jersey 08625-0863 Telephone: (609) 633-2924 Fax: (609) 777-4143

WEB: www.state.nj.us/corrections

**Customized Training Program** - the workforce development partnership program helps employers to upgrade the skills of their workforce to compete in today's economy. This program offers matching grants and other reimbursements to help qualified employers provide training that is "customized" to the demands of their workplace. For more information, please contact:

New Jersey Department of Labor and Workforce Development Division of Business Services PO Box 933 Trenton, New Jersey 08625-0058 Telephone: (609) 633-1360 **Employer Human Resources Support** - this unit conducts job analysis, job restructuring and other technical services, to help employers and unions develop and administer effective human resource and employee training and development programs to remain competitive in today's global marketplace.

New Jersey Department of Labor and Workforce Development Division of Business Services P. O. Box 933 Trenton, New Jersey 08625-0933

Telephone: (609) 984-3518

**Labor Market and Demographic Research (LM&DR)** - this unit produces a wide range of labor market information used by business leaders, educators, planners and public administrators. Housed within LM&DR, the New Jersey State Data Center is a repository for census and other economic and demographic data. Data can be accessed directly via the Internet at <a href="www.state.nj.us/labor/lra">www.state.nj.us/labor/lra</a>. For more information contact:

New Jersey Department of Labor and Workforce Development Labor Market and Demographic Research P. O. Box 388 Trenton, New Jersey 08625-0388 Telephone: (609) 984-2593

#### Military and Veterans Affairs, Department of

State Approving Agency Eggerts Crossing Road P. O. Box 340

Trenton, New Jersey 08625-0340 Telephone: (609) 530-6858 Fax: (609) 530-6970

Web: www.state.nj.us/military

**New Jersey Business and Industry Association** - the statewide organization offers information and technical assistance to employers throughout New Jersey on a variety of employment and training issues. For more information, please contact:

New Jersey Business and Industry Association 102 West State Street Trenton, New Jersey 08608 Telephone: (609) 393-7707

New Jersey Center for Occupational Employment Information (COEI) - this unit develops, manages, and oversees a statewide, comprehensive occupational labor market supply and demand system to meet the common information needs for the planning for , and the operation of, all public training and job placement programs. The NJCOEI also disseminates labor market supply and demand information through a series of handbooks and computerized occupational information systems. Data can be accessed directly via the Internet at <a href="https://www.wnjpin.net/coei">www.wnjpin.net/coei</a>. For more information, contact:

New Jersey Department of Labor and Workforce Development

New Jersey Center for Occupational Employment Information P. O. Box 057

Trenton, New Jersey 08625-0057 Telephone: (800) 222-1309

Occupational Safety and Health On-Site Consultation Services - this office offers *free* OSHA consultations on-site to employers to assess workplace safety and health management systems and identify hazards to help employers prevent accidents, illnesses and fatalities.

New Jersey Department of Labor and Workforce Development Division of Public Safety and Occupational Safety and Health P.O. Box 953

Trenton, New Jersey 08625-0953

Telephone: 609-292-0404 (Safety consultant) Telephone: 609-292-8659 (Health consultant)

**Response Team** - helps employers who are closing or downsizing, by providing re-employment services to the affected workers at the job site and through other innovative services. For more information, contact:

New Jersey Department of Labor and Workforce Development Division of Business Services P. O. Box 933 Trenton, New Jersey 08625-0933

Telephone: (800) 343-3919

**Veterans Education and Training** - services and benefits may be available to veterans, reservists, and eligible dependents of veterans, enrolled in registered apprenticeship programs and other approved training and education programs. For more information about benefit programs, please contact:

State Approving Agency New Jersey Department of Veterans & Military Affairs Eggerts Crossing Road P. O. Box 340 Trenton, New Jersey 08625-0340 Telephone: (609) 530-6852

**Wage and Hour Compliance** - this office enforces wage and hour, prevailing wage, child labor laws, minimum wage, back wages and related employment issues. For more information, please contact:

New Jersey Department of Labor and Workforce Development Division of Wage and Hour Compliance P. O. Box 389 Trenton, NJ 08625-0389

Trenton, NJ 08625-0389 Telephone: (609) 984-7356 **Workforce Investment Act (WIA)** - WIA is a federally-funded program that provides training and employment assistance, and also supportive services, to eligible individuals, including those who have lost their jobs due to mass layoffs, plant closings, displaced homemakers, veterans, older workers, youth and individuals with low income. These programs prepare adults and youth for participation in the labor force by providing job training and other services. For more information about WIA training program services in their area, contact:

New Jersey Department of Labor and Workforce Development Division of One Stop Programs and Services P. O. Box 055 Trenton, New Jersey 08625-0055

Telephone: (609) 292-5834

#### APPRENTICESHIP TRAINING DIRECTORY

STATE OF NEW JERSEY
DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF BUSINESS SERVICES
DIRECTOR
P. O. Box 933
TRENTON, NEW JERSEY 08625-0933

Telephone: (609) 292-6852 www.nj.gov/labor

**PROGRAM AREA: Business Services** 

#### COUNTY APPRENTICESHIP COORDINATORS

#### ATLANTIC COUNTY

Ms. Sandra Linton Apprenticeship Coordinator

Atlantic County Vocational Technical School

5080 Atlantic Avenue

Mays Landing, New Jersey 08330 Telephone: (609) 625-2249 x 1209

Fax: (609) 625-8622 Email: <u>slinton@acitech.org</u>

#### **BERGEN COUNTY**

Mr. Michael Ryan

Apprenticeship Coordinator

Bergen County Technical School at Paramus

E. 285 Pascack Road

Paramus, New Jersey 07652

Telephone: (201) 343-6000 x 4605

Fax: (201) 599-1288 Email: micrya@bergen.org

#### **BURLINGTON COUNTY**

Mr. John Karaska

Apprenticeship Coordinator

**Burlington County Institute of Technology** 

10 Hawkins Road

Medford, New Jersey 08055

Telephone: (609) 654-0200 X544

Fax: (609) 654-2698 Email: jkaraska@bcit.cc

#### **CAMDEN**

Mr. John E. Moore Jr.

Apprenticeship Coordinator

Camden County Technical School

343 Berlin-Cross Keys Road Sicklerville, New Jersey 08081

Telephone: (856) 767-7000 x 5299

Fax: (856) 767-6625

Email: <u>jmoore@ccts.tec.nj.us</u>

#### **CAPE MAY COUNTY**

Ms. Laura Elston

Apprenticeship Coordinator

Cape May County Technical School

188 Crest Haven Road

Cape May Court House, New Jersey 08210

Telephone: (609) 465-2161 x 670

Fax: (609) 465-4399

Email: lelston@capemaytech.com

#### **CUMBERLAND COUNTY**

Mr. Roger Linton

Cumberland Co. Technical Education

Center

601 Bridgeton Road

Bridgeton, New Jersey 08302

Telephone: (856) 451-9000 x 258

Fax: (856) 451-8487

Email: rlinton@cumberland.tec.nj.us

#### **ESSEX COUNTY**

Essex County Vocational Technical School 50 South Clinton Street – 5<sup>th</sup> Floor East Orange, New Jersey 07018

Telephone: (973) 395-8554 Fax: (973) 623-2010

#### **GLOUCESTER COUNTY**

Mr. Thomas Ferdyna Apprenticeship Coordinator Gloucester County Institute of Technology 1360 Tanyard Road - P.O. Box 800 Sewell, New Jersey 08080

Telephone: (856) 468-1445 x 2516

Fax: (856) 468-7536 Email: tfurdyna@gcit.org

#### **HUDSON COUNTY**

Mr. Joseph Mantineo School-to-Work Coordinator Hudson County Schools of Technology 8511 Tonnelle Avenue

North Bergen, New Jersey 07047 Telephone: (201) 662-6741 Fax: (201) 854-4632

Email: jmantine@hcstonline.org

#### **HUNTERDON COUNTY**

Ms. Kim Metz Apprenticeship Coordinator Hunterdon County Polytech North Campus - 1445 Route 31 South Annandale, New Jersey 08801 Telephone: (908) 806-3855 x 107

Telephone: (908) 806-3855 x 10 Fax: (908) 735-0331

Email: kmetz@hcpolytech.org

#### **MERCER COUNTY**

Mr. Peter Frascella Apprenticeship Coordinator Mercer County Vocational Technical Evening Adult School 1085 Old Trenton Road Trenton, New Jersey 08690 Telephone: (609) 586-5146

Fax: (609) 586-1709 Email: pfrascella@mctec.net

#### MIDDLESEX COUNTY

Mr. Bruce Negri Apprenticeship Coordinator Middlesex County Vocational Technical School

Box 1070 - 112 Rues Lane

East Brunswick, New Jersey 08861 Telephone: (732) 257-3300 x 1921

Fax: (732) 390-4252

Email: negrib@mail.mcvts.net

#### **MONMOUTH COUNTY**

Mr. Thomas Devino

Apprenticeship Coordinator

Monmouth Co. Vocational Technical School

225West End Avenue

Long Branch, New Jersey 07740 Telephone: (732) 229-3019 Fax: (732) 229-5727

Email: thomas devino@mcvsd.org

#### **MORRIS COUNTY**

Mr. Kenneth Williams County Apprenticeship Coordinator

Morris County Vocational Technical School

400 East Main Street

Denville, New Jersey 07834

Telephone: 973) 627-4600 x 232 Fax (973) 586-4314 Email: williamsk@mcvts.org

#### **OCEAN COUNTY**

Ms. Bernice Dowd Apprenticeship Coordinator Ocean County Vocational Technical School 1299 Old Freehold & Bey Lea Road

Toms River, New Jersey 08753
Telephone: (732) 473-3159
Fax: (732) 349-9788
Email: bdowd@ocvts.org

#### PASSAIC COUNTY

Dr. Kent Bania Apprenticeship Coordinator Passaic County Technical Institute 45 Reinhardt Road Wayne, New Jersey 07470

Telephone: (973) 389-4101
Fax: (973) 790-4727
Email: kbania@pcti.tec.nj.us

#### SALEM COUNTY

Ms. Brenda Hecker Apprenticeship Coordinator Salem County Vocational Technical School P.O. Box 350

Woodstown, New Jersey 08098
Telephone: (856) 769-0101 x 349
Eart (856) 760 4214

Fax: (856) 769-4214 Email: <u>bhecker@scvts.org</u>

#### **SOMERSET COUNTY**

Mr. Joseph Malone Apprenticeship Coordinator Somerset County Vocational Technical

School

P.O. Box 6350 - Vogt Drive Bridgewater, New Jersey 08807 Telephone: (908) 526-8900 x 7265

Fax: (908) 526-9494 Email: jmalone@scettc.org

#### SUSSEX COUNTY

Ms. Lisa Krauss Apprenticeship Coordinator

Sussex County Vocational Technical School

105 N. Church Road Sparta, New Jersey 07871

Telephone: (973) 383-6700 x 222 Fax: (973) 383-4781

Email: lkrauss@sussex.tec.nj.us

#### **UNION COUNTY**

Mr. Ronald Weber

Apprenticeship Coordinator

Union County Vocational Technical School

1776 Raritan Road

Scotch Plains, New Jersey 07076 Telephone: (908) 889-8288 x309 Fax: (908) 889-4940

Email: rweber@ucvts.tec.nj.us

#### WARREN COUNTY

Mr. Edmond Turenne Apprenticeship Coordinator

Warren County Vocational Technical

School

1500 Route 57

Washington, New Jersey 07882 Telephone: (908) 835-2841 Fax: (908) 689-7699

Email: turennee@warrennet.org

#### FEDERAL APPRENTICESHIP AND TRAINING DIRECTORY

UNITED STATES DEPARTMENT OF LABOR/ETA/ATEL
STATE DIRECTOR
BUREAU OF APPRENTICESHIP & TRAINING
WOODBRIDGE CORPORATE PLAZA
485 ROUTE 1 SOUTH
BUILDING E, ROOM 300
ISELIN, NEW JERSEY 08830
Telephone: (732) 750-9191
Fax: (732) 750-0788

http://www.dol.gov/dol/topic/training/apprenticeship.htm

#### APPRENTICESHIP TRAINING REPRESENTATIVES

Mr. Dennis Fitzgerald, State Director Email: Fitzgerald.Dennis@dol.gov

#### Ms. JoAnn Tomenchok

Email: Tomenchok.Joann@dol.gov

Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Monmouth, Ocean,

and Salem Counties

#### Ms. Debra Paul

Email: Paul.Debra@dol.gov

Bergen, Essex, Hudson, Union Counties

#### Ms. Donna Scalia

Email: Scalia.Donna@dol.gov

Hunterdon, Mercer, Middlesex, Morris, Passaic, Somerset, Sussex, and Warren Counties

#### Ms. JoAnne Morek

Email: Morek.JoAnne@dol.gov

Bureau of Apprenticeship and Training Office Secretary

#### Document Prepared by:

Department of Labor and Workforce Development Division of Business Services - 10/10/2006

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
1043	53-5011.01	ABLE SEAMAN	2760	Time-Based	02-06
0860	51-7011.00	ACCORDION MAKER	8000	Time-Based	
0861	47-2081.01	ACOUSTICAL CARPENTER	8000	Time-Based	
0862	27-2011.00	ACTOR	4000	Time-Based	80-25
1067CB	49-3011.02	AEROSPACE PROPULSION JET ENG MEC	2500	Comp-Based	04-19
0703	37-3012.00	AGRICULTURAL SERVICE WORKER	4000	Time-Based	96-03
0990	49-9021.01	AIR & HYDRONIC BALANCING TECH	6000	Time-Based	86-04
0686	49-3023.02	AIR CONDITIONING MECH (Auto Serv)	2000	Time-Based	79-33
0002	49-2092.01	AIRCOND INSTALLER WINDOW	6000	Time-Based	
0863	55-3014.00	AIRCRAFT ARMAMENT MECHANIC	8000	Time-Based	
0865	51-2011.02	AIRCRAFT MECHANIC, ARMAMENT	8000	Time-Based	
0003	49-2091.00	AIRCRAFT MECHANIC, ELECTRICAL	8000	Time-Based	
0866	51-2011.02	AIRCRAFT MECH, PLUMB & HYDRA	8000	Time-Based	
1068CB	51-4011.00	AIRCRAFT METALS TECH/Mach/CNC	2500	Comp-Based	04-19
0867	49-9061.00	AIRCRAFT PHOTOGRAPH EQUIP	8000	Time-Based	
1063CB	53-2022.00	AIRFIELD MANAGEMENT	2500	Comp-Based	04-19
1044	49-3011.01	AIRFRAME MECHANIC	3100	Time-Based	02-21
0005	49-3011.01	AIRFRAME & POWERPLANT MECHANIC	8000	Time-Based	
0868	51-9199.99	AIRPLANE COVERER	8000	Time-Based	
0004	51-9061.02	AIRPLANE INSPECTOR	6000	Time-Based	84-01
1046	53-2012-00	AIR TRANSPORT PILOT	6780	Comp-Based	03-01
0870	43-5031.00	ALARM OPERATOR (Gov Serv)	2000	Time-Based	80-03
0007	51-6052.01	ALTERATION TAILOR	4000	Time-Based	
0724	53-3011.00	AMBULANCE ATTENDANT (EMT)	2000	Time-Based	
0871	39-2011.00	ANIMAL TRAINER	4000	Time-Based	
0105	47-2141.00	ARCHITECTURAL, COATINGS FINISHER	6000	Time-Based	88-17
0531	33-2021.02	ARSON AND BOMB INVESTIGATOR	4000	Time-Based	88-33
0011	51-9195.04	ARTIFICIAL GLASS EYE MAKER	10000	Time-Based	
0012	51-9082.00	ARTIFICIAL PLASTIC EYE MKR	10000	Time-Based	
0872	47-2071.00	ASPHALT PAVING MACHINE OPER	6000	Time-Based	
0873	51-2031.00	ASSEMBLER, AIRCRAFT POWERPLANT	4000	Time-Based	
0874	51-2011.01	ASSEMBLER, AIRCRAFT STRUCTURES	8000	Time-Based	
0875	17-3024.00	ASSEMBLER, ELECTROMECHANICAL	8000	Time-Based	
0877	47-2221.00	ASSEMBLER, METAL BUILDING	4000	Time-Based	
0876	51-2011.01	ASSEMBLER-INSTALLER, GENERAL	4000	Time-Based	
0878	49-2011.03	ASSEMBLY TECHNICIAN	4000	Time-Based	
0903	51-5023.09	ASSISTANT PRESS OPERATOR	4000	Time-Based	88-04
0879	27-4012.00	AUDIO OPERATOR	4000	Time-Based	78-41
0880	49-2097.00	AUDIO-VIDEO REPAIRER	4000	Time-Based	
0779	51-9041.02	AUGER PRESS OPR, MAN CONTR	4000	Time-Based	
0836	49-3023.02	AUTO COOLING SYS DIAG TECH	4000	Time-Based	79-33
0027	49-9041.00	AUTO-MAINT-EQUIP SERVICER	8000	Time-Based	
0821	49-9044.00	AUTOMATED EQUIP ENGR-TECH	8000	Time-Based	
0021	49-2022.03	AUTOMATIC-EQUIP TECHNICIAN	8000	Time-Based	
0024	49-3021.00	AUTOMOBILE BODY REPAIRER	8000	Time-Based	
0023	49-3023.01	AUTOMOBILE MECHANIC	8000	Time-Based	
0881	51-9061.02	AUTOMOBILE TESTER	8000	Time-Based	
0639	51-6093.00	AUTOMOBILE UPHOLSTERER	6000	Time-Based	
0638	51-9061.02	AUTOMOBILE-REPAIR-SERV EST	8000	Time-Based	
0882	49-2092.02	AUTOMOTIVE-GENERATOR-STARTER REP	4000	Time-Based	62.26
1034CB	49-3023.02	AUTOMOTIVE TECHNICIAN SPECIALIST	2000-4000	Comp-Based	03-20
0784	49-3023.02	AUTO-RADIATOR MECHANIC	4000	Time-Based	79-33

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0605	49-9099.99	AVIATION SAFETY EQUIP TECH	8000	Time-Based	90-18
0599	49-9041.00	AVIATION SUPPORT EQUIP REP	8000	Time-Based	90-14
0464	49-2094.00	AVIONICS TECHNICIAN	8000	Time-Based	
0028	51-3011.02	BAKER (Bake Produce)	6000	Time-Based	
0776	51-3011.01	BAKER (Hotel & Restaurant)	6000	Time-Based	
0883	35-2011.00	BAKER, PIZZA (Hotel & Restaurant)	2000	Time-Based	
0029	49-9041.00	BAKERY-MACHINE MECHANIC	6000	Time-Based	
0640	27-1021.00	BANK-NOTE DESIGNER	10000	Time-Based	
0030	39-5011.00	BARBER	2000	Time-Based	
0608	35-3011.00	BARTENDER	2000	Time-Based	90-26
0884	51-9051.00	BATCH-AND-FURNACE OPERATOR	8000	Time-Based	
0885	49-2092.03	BATTERY REPAIRER	4000	Time-Based	
0886	11-9012.00	BEEKEEPER	8000	Time-Based	79-62
0031	51-9071.04	BENCH HAND (Jewelry-Silver)	4000	Time-Based	
0887	51-5023.01	BEN-DAY ARTIST	12000	Time-Based	
0033	51-5011.02	BINDERY WORKER	8000	Time-Based	
0026	51-5011.01	BINDERY-MACHINE SETTER	8000	Time-Based	
0888	49-9062.00	BIOMEDICAL EQUIPMENT TECH	8000	Time-Based	80-04
0035	51-4199.99	BLACKSMITH	8000	Time-Based	
0889	51-9083.01	BLOCKER & CUTTER CONTACT LENS	2000	Time-Based	
0036	47-2031.05	BOATBUILDER, WOOD	8000	Time-Based	
0815	51-8021.02	BOILER OPERATOR	8000	Time-Based	
0038	47-2011.00	BOILERHOUSE MECHANIC	6000	Time-Based	
0039	47-2011.00	BOILERMAKER FITTER	8000	Time-Based	
0040	47-2011.00	BOILERMAKER I	6000	Time-Based	
0041	47-2011.00	BOILERMAKER II	6000	Time-Based	
0047	51-5012.00	BOOKBINDER	10000	Time-Based	
0890	51-6041.00	BOOTMAKER, HAND	2000	Time-Based	
0891	51-9071.04	BRACELET & BROOCH MAKER	8000	Time-Based	
0892	49-3023.02	BRAKE REPAIRER (Auto Serv)	4000	Time-Based	
0051	47-2021.00	BRICKLAYER (Brick & Tile)	8000	Time-Based	
0052	47-2021.00	BRICKLAYER (Construction)	6000	Time-Based	
0706	47-2021.00	BRICKLAYER, FIREBRICK & REF	8000	Time-Based	
0893	51-9071.06	BRILLIANDEER-LOPPER	6000	Time-Based	
0662	51-3023.00	BUTCHER, ALLROUND	6000	Time-Based	
0894	51-3021.00	BUTCHER, MEAT (Hotel & Restaurant)	6000	Time-Based	
0054	51-9012.00	BUTTERMAKER	4000	Time-Based	
0055	51-7011.00	CABINETMAKER	8000	Time-Based	
0056	49-9051.00	CABLE INSTALLER-REPAIRER	6000	Time-Based	
0058	49-9051.00	CABLE SPLICER	8000	Time-Based	
0566	49-9052.00	CABLE TELEVISION INSTALLER	2000	Time-Based	79-22
0059	51-9061.04	CABLE TESTER (Tel & Tel)	8000	Time-Based	
0895	17-3023.02	CALIBRATION LABORATORY TECH	8000	Time-Based	85-04
1031	51-9061.03	CALIBRATOR (Military)	4000	Time-Based	99-11
0955	27-4031.00	CAMERA OPERATOR	6000	Time-Based	
0062	49-9061.00	CAMERA REPAIRER	4000	Time-Based	
0790	49-9041.00	CANAL EQUIPMENT MECHANIC	4000	Time-Based	
0065	51-3092.00	CANDY MAKER	6000	Time-Based	
0641	51-9199.99	CANVAS WORKER	6000	Time-Based	
0642	49-3043.00	CAR REPAIRER (Railroad Equipment)	8000	Time-Based	
0896	49-3023.02	CARBURETOR MECHANIC	8000	Time-Based	
0897	51-6099.99	CARD CUTTER, JACQUARD	8000	Time-Based	

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0898	51-4194.00	CARD GRINDER	8000	Time-Based	
1057CB	13-1071.01	CAREER DEVELOPMENT TECHNICIAN	4500	Comp-Based	04-02
0067	47-2031.01	CARPENTER	8000	Time-Based	
0653	47-2031.01	CARPENTER, INTERIOR SYSTEMS	8000	Time-Based	93-10
0068	47-203101	CARPENTER, MAINTENANCE	8000	Time-Based	
0762	47-2031.01	CARPENTER, MOLD	2000	Time-Based	
1009	47-2031.02	CARPENTER, PILEDRIVER	8000	Time-Based	88-06
0069	47-2031.02	CARPENTER, ROUGH	8000	Time-Based	
0070	47-2031.04	CARPENTER, SHIP	8000	Time-Based	
0899	51-9031.00	CARPET CUTTER (Ret Trade)	2000	Time-Based	
0071	47-2041.00	CARPET LAYER	6000	Time-Based	
0037	27-1013.03	CARTOONIST, MOTION PICTURE	6000	Time-Based	80-51
0042	51-7011.00	CARVER, HAND	8000	Time-Based	
0072	49-2011.03	CASH-REGISTER SERVICER	6000	Time-Based	
0043	51-5011.01	CASING-IN-LINE SETTER	8000	Time-Based	
0073	47-2031.03	CASKET ASSEMBLER	6000	Time-Based	
0074	51-9071.04	CASTER (Jewelry-Silver)	4000	Time-Based	
0044	51-4072.04	CASTER (Nonfer Metal)	4000	Time-Based	
0046	51-9195.07	CELL MAKER	2000	Time-Based	
0075	47-2051.00	CEMENT MASON	4000	Time-Based	
0076	49-2022.01	CENTRAL-OFFICE INSTALLER	8000	Time-Based	
0077	49-2022.01	CENTRAL-OFFICE REPAIRER	8000	Time-Based	
1082CB	21-2099.00	CHAPLAIN SERVICE SUPPORT	2000	Comp-Based	04-19
0049	51-9071.02	CHASER (Jewelry-Silver)	8000	Time-Based	
0078	51-3092.00	CHEESEMAKER	4000	Time-Based	
0969	19-4031.00	CHEMICAL ENGINEERING TECH	8000	Time-Based	
0050	19-4031.00	CHEMICAL LABORATORY TECH	8000	Time-Based	
0791	51-9011.01	CHEMICAL OPERATOR III	6000	Time-Based	
1053	35-1011.00	CHIEF, COOK (Water Transportation)	4000.5	Time-Based	
0053	17-3031.00	CHIEF OF PARTY (Prof & Kin)	8000	Time-Based	
0057	51-8091.00	CHIEF OPERATOR (Chem)	6000	Time-Based	
0840	39-9011.00	CHILD CARE DEV SPECIALIST	4000	Time-Based	81-19
0849	47-2021.00	CHIMNEY REPAIRER	2000	Time-Based	82-08
0060	51-8031.00	CLARIFYING-PLANT OPER (Text)	2000	Time-Based	
0081	27-1021.00	CLOTH DESIGNER	8000	Time-Based	
1025	51-9121.02	COATING MACHINE OPERATOR I	2000	Time-Based	98-08
0609	49-9091.00	COIN-MACH-SERVICE REPAIRER	6000	Time-Based	77-08
0084	51-9131.01	COLORIST, PHOTOGRAPHY	4000	Time-Based	
1065CB	55-3015.00	COMMAND POST SPECIALTY	2500	Comp-Based	04-19
0013	27-1021.00	COMMERCIAL DESIGNER	8000	Time-Based	
1073CB	15-1051.00	COMMUNICATIONS-COMPUTER SYSTEMS	2500	Comp-Based	04-19
0061	51-9061.04	COMPLAINT INSPECTOR	8000	Time-Based	
0086	49-9041.00	COMPOSING-ROOM MACHINIST	12000	Time-Based	
0087	51-5022.01	COMPOSITOR	8000	Time-Based	_
0676	43-9011.00	COMPUTER OPERATOR	6000	Time-Based	95-03
0811	15-1021.00	COMPUTER PROGRAMMER	4000	Time-Based	78-58
0817	43-9011.00	COMPUTER-PERIPHERAL-EQ-OP	2000	Time-Based	78-66
0661	47-2061.00	CONSTRUCTION CRAFT LABORER	4000	Time-Based	94-08
1032	53-3032.01	CONSTRUCTION DRIVER	2400	Time-Based	99-12
0336	49-3042.00	CONSTRUCTION EQUIP MECHANIC	8000	Time-Based	
0904	51-9081.00	CONTOUR WIRE SPEC DENTURE	8000	Time-Based	
0693	49-2094.00	CONTROL EQUIP ELEC-TECH	10000	Time-Based	95-04

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0066	49-9041.00	CONVEYOR MAINTENANCE MECH	4000	Time-Based	89-05
0557	53-7011.00	CONVEYOR SYSTEM OPERATOR	8000	Time-Based	89-09
0090	35-2012.00	COOK (Any Ind)	4000	Time-Based	
0663	35-2014.00	COOK (Hotel & Restaurant)	6000	Time-Based	
0722	51-3011.01	COOK, PASTRY (Hotel & Restaurant)	6000	Time-Based	
0634	49-9041.00	COOLING TOWER TECHNICIAN	4000	Time-Based	92-02
0091	47-2152.01	COPPERSMITH (Ship & Boat)	8000	Time-Based	
0094	51-4071.00	COREMAKER	8000	Time-Based	
0095	47-2131.00	CORK INSULATOR, REFRIG PLT	8000	Time-Based	
0851	33-3012.00	CORRECTION OFFICER	2000	Time-Based	78-65
0920	49-2095.00	CORROSION-CONTROL FITTER	8000	Time-Based	
0096	39-5012.00	COSMETOLOGIST	2000	Time-Based	
0569	21-1012.00	COUNSELOR	4000	Time-Based	89-15
0991	51-4051.00	CUPOLA TENDER	6000	Time-Based	
0314	51-6052.02	CUSTOM TAILOR (Garment)	8000	Time-Based	
1008	49-9031.02	CUSTOMER SERVICE REPRESENT	6000	Time-Based	88-07
0613	51-9031.00	CUTTER, MACHINE 1	6000	Time-Based	
0080	51-4194.00	CYLINDER GRINDER (Prt & Pub)	10000	Time-Based	
0677	51-5023.03	CYLINDER PRESS OPERATOR	8000	Time-Based	
0099	49-3041.00	DAIRY EQUIPMENT REPAIRER	6000	Time-Based	
0630	19-4021.00	DAIRY TECHNOLOGIST	8000	Time-Based	
0082	27-1026.00	DECORATOR (Any Ind)	8000	Time-Based	
0100	51-9123.00	DECORATOR (Glass Mfg)	8000	Time-Based	
0101	31-9091.00	DENTAL ASSISTANT	2000	Time-Based	79-19
0102	51-9081.00	DENTAL CERAMIST	4000	Time-Based	
0103	51-9081.00	DENTAL LABORATORY TECH	6000	Time-Based	
0650	49-9062.00	DENTAL-EQUIP INSTALL & SERV	6000	Time-Based	
0107	51-6092.00	DESIGN & PATTERNMAKER SHOE	4000	Time-Based	
0106	17-3012.01	DESIGN DRAFTER, ELECTROMEC	8000	Time-Based	
0108	17-3013.00	DETAILER	8000	Time-Based	
1081CB	29-2034.01	DIAGNOSTIC IMAGING SPECIALTY	2500	Comp-Based	04-19
0083	51-9071.06	DIAMOND SELECTOR (Jewelry)	8000	Time-Based	
0085	49-2011.03	DICTATING-TRANS-MACH SERV	6000	Time-Based	
0113	17-3013.00	DIE DESIGNER	8000	Time-Based	
0114	51-4111.00	DIE FINISHER	8000	Time-Based	
0115	51-4111.00	DIE MAKER (Jewelry-Silver)	8000	Time-Based	
0654	51-4111.00	DIE MAKER (Paper Goods)	8000	Time-Based	
0668	51-4111.00	DIE MAKER, BENCH, STAMPING	8000	Time-Based	
0118	51-4111.00	DIE MAKER, STAMPING	6000	Time-Based	
0119	51-4111.00	DIE MAKER, TRIM	8000	Time-Based	
0939	51-4111.00	DIE MAKER, WIRE DRAWING	6000	Time-Based	
0120	51-4194.00	DIE POLISHER (Nonfer Metal)	2000	Time-Based	
0121	51-4022.00	DIE SETTER (Forging)	4000	Time-Based	
0122	51-4111.00	DIE SINKER	8000	Time-Based	
0093	51-9061.02	DIESEL ENGINE TESTER	8000	Time-Based	
0124	49-3031.00	DIESEL MECHANIC	8000	Time-Based	
1040CB	21-1093.00	DIRECT SUPPORT SPECIALIST	3000	Comp-Based	02-02
0820	11-9061.00	DIRECTOR, FUNERAL	4000	Time-Based	80-10
0970	27-2012.02	DIRECTOR, TELEVISION	4000	Time-Based	84-07
0681	43-5032.00	DISPATCHER, SERVICE	4000	Time-Based	95-04
0098	27-1027.02	DISPLAY DESIGNER (Prof & Kin)	8000	Time-Based	
0324	27-1026.00	DISPLAYER, MERCHANDISE	2000	Time-Based	

RAIS	O*NET/SOC			TYPE OF
CODE	CODE	OCCUPATIONAL TITLE	TERM	TRAINING BULLETIN(S)
0104	49-9011.00	DOOR-CLOSER MECHANIC	6000	Time-Based
0679	51-5022.08	DOT ETCHER	10000	Time-Based
0126	17-3011.01	DRAFTER, ARCHITECTURAL	8000	Time-Based
0019	17-3013.00	DRAFTER, AUTO DESIGN LAYOUT	8000	Time-Based
0018	17-3013.00	DRAFTER, AUTOMOTIVE DESIGN	8000	Time-Based
0109	17-1021.00	DRAFTER, CARTOGRAPHIC	8000	Time-Based
0128	17-3011.02	DRAFTER, CIVIL	8000	Time-Based
0129	17-3011.01	DRAFTER, COMMERCIAL	8000	Time-Based
0130	17-3013.00	DRAFTER, DETAIL	8000	Time-Based
0131	17-3012.02	DRAFTER, ELECTRICAL	8000	Time-Based
0995	17-3012.01	DRAFTER, ELECTRONIC	8000	Time-Based
0133	17-3011.01	DRAFTER, HEATING & VENTILATE	8000	Time-Based
0134	17-3011.01	DRAFTER, LANDSCAPE	8000	Time-Based
0135	17-3011.01	DRAFTER, MARINE	8000	Time-Based
0136	17-3013.00	DRAFTER, MECHANICAL	8000	Time-Based
0111	17-3011.01	DRAFTER, PLUMBING	8000	Time-Based
0139	17-3011.01	DRAFTER, STRUCTURAL	6000	Time-Based
0140	17-3013.00	DRAFTER, TOOL DESIGN	8000	Time-Based
0957	53-7032.02	DRAGLINE OPERATOR	2000	Time-Based
0117	53-7031.00	DREDGE OPERATOR	2000	Time-Based
0144	51-6052.02	DRESSMAKER	8000	Time-Based
0125	47-5042.00	DRILLING-MACHINE OPER	6000	Time-Based
0649	51-6011.03	DRY CLEANER	6000	Time-Based
0145	47-2081.02	DRY-WALL APPLICATOR	4000	Time-Based
1054CB	15-1099.00	E-COMMERCE SPECIALIST	6000	Comp-Based 03-17
1079CB	13-1073.00	EDUCATION AND TRAINING	2500	Comp-Based 04-19
0927	51-2031.00	ELECT-MOTOR & GEN ASSEMBLER	4000	Time-Based
0829	49-2092.02	ELECT-MOTOR ASSEM & TESTER	8000	Time-Based
0171	49-9041.00	ELECT-PROD-LINE-MAINT-MECH	2000	Time-Based
0330	49-9012.01	ELECTRIC METER INSTALLER I	8000	Time-Based
0151	49-9012.01	ELECTRIC METER REPAIRER	8000	Time-Based
0792	51-9061.03	ELECTRIC METER TESTER	8000	Time-Based
0149	49-2092.02	ELECTRIC MOTOR REPAIRER	8000	Time-Based
0652	51-2022.00	ELECTRIC SIGN ASSEMBLER	8000	Time-Based
0150	49-2092.01	ELECTRIC TOOL REPAIRER	8000	Time-Based
0154	49-2092.01	ELECTRICAL APPLIANCE REPR	6000	Time-Based
0156	49-2092.01	ELECTRICAL APPLIANCE SERV	6000	Time-Based
0157	17-3023.02	ELECTRICAL INSTRUMENT REPR	6000	Time-Based
0155	17-3023.03	ELECTRICAL TECHNICIAN	8000	Time-Based
0905	51-9061.04	ELECTRIC-DISTRIBUTION CHECKER	4000	Time-Based
0159	47-2111.00	ELECTRICIAN	8000	Time-Based
0771	47-2111.00	ELECTRICIAN (Ship & Boat)	8000	Time-Based
0158	47-2111.00	ELECTRICIAN (Water Trans)	8000	Time-Based
0160	49-2091.00	ELECTRICIAN, AIRCRAFT	8000	Time-Based
0161	49-2096.00	ELECTRICIAN, AUTOMOTIVE	4000	Time-Based
0162	49-2093.00	ELECTRICIAN, LOCOMOTIVE	8000	Time-Based
0643	47-2111.00	ELECTRICIAN, MAINTENANCE	8000	Time-Based
0163	49-2095.00	ELECTRICIAN, POWERHOUSE	8000	Time-Based
0164	49-2021.00	ELECTRICIAN, RADIO	8000	Time-Based
0166	49-2095.00	ELECTRICIAN, SUBSTATION	6000	Time-Based
0132	49-9097.00	ELECTRIC-TRACK-SWITCH MAIN	8000	Time-Based
0167	17-3024.00	ELECTROMECHANICAL TECH	6000	Time-Based

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0168	49-9062.00	ELECTROMEDICAL EQUIP REPAIRER	4000	Time-Based	76-01
0617	43-9031.00	ELECTRONIC PREPRESS SYSTEM OP	10000	Time-Based	91-13
1041	49-2022.03	ELECTRONIC SYSTEMS TECH	8000	Time-Based	02-04
0137	49-2097.00	ELECTRONIC-ORGAN TECHNICIAN	4000	Time-Based	
0170	49-2011.02	ELECTRONICS MECHANIC	8000	Time-Based	
0169	17-3023.01	ELECTRONICS TECHNICIAN	8000	Time-Based	
0570	51-9061.04	ELECTRONICS TESTER	6000	Time-Based	
0967	51-9199.99	ELECTRONICS UTILITY WORKER	8000	Time-Based	
1036	51-9121.01	ELECTROSTATIC POWDER COATING TECH	8000	Time-Based	00-03
0172	51-5022.10	ELECTROTYPER	10000	Time-Based	
0906	49-2094.00	ELECT-SALES & SERVICE TECH	8000	Time-Based	
0138	47-2073.01	ELEVATING-GRADER OPERATOR	4000	Time-Based	
0173	47-4021.00	ELEVATOR CONSTRUCTOR	8000	Time-Based	
0174	47-4021.00	ELEVATOR REPAIRER	8000	Time-Based	
0665	39-4011.00	EMBALMER (Per Ser)	4000	Time-Based	80-10
0704	51-5023.07	EMBOSSER	4000	Time-Based	
0684	51-5023.07	EMBOSSING-PRESS OPERATOR	8000	Time-Based	
0730	29-2041.00	EMERGENCY MEDICAL TECH	6000	Time-Based	
0176	49-3053.00	ENGINE REPAIRER, SERVICE	8000	Time-Based	
0143	51-9071.04	ENGINE TURNER (Jewelry)	4000	Time-Based	
0764	17-3013.00	ENGINEERING ASST, MECH EQUIP	8000	Time-Based	
0249	51-4061.00	ENGINEERING MODEL MAKER (Inst & App)	8000	Time-Based	
0782	51-4034.00	ENGINE-LATHE SET-UP OP, TOOL	4000	Time-Based	79-65
0142	51-4034.00	ENGINE-LATHE SET-UP OPERATOR	4000	Time-Based	
0178	51-9194.02	ENGRAVER (Glass Prod)	4000	Time-Based	
0705	51-9194.01	ENGRAVER I	10000	Time-Based	
0146	51-9194.01	ENGRAVER, BLOCK (Prt & Pub)	8000	Time-Based	
0806	51-9194.01	ENGRAVER, HAND, HARD METAL	8000	Time-Based	
0147	51-9194.01	ENGRAVER, HAND, SOFT METAL	8000	Time-Based	
0963	51-5023.08	ENGRAVER, MACHINE	8000	Time-Based	
0179	51-9194.04	ENGRAVER, PANTOGRAPH I	8000	Time-Based	
0148	51-9194.01	ENGRAVER, PICTURE (Prt&Pub)	2000	Time-Based	
0915	51-5023.08	ENGRAVING PRESS OPERATOR	6000	Time-Based	
0180	51-9196.00	ENVELOPE-FOLD-MACH ADJUSTER	6000	Time-Based	
0648	19-2041.00	ENVIRONMENTAL ANALYST	7000	Time-Based	93-02
0165	49-2022.03	EQUIPMENT INSTALLER (Tel & Tel)	8000	Time-Based	
0965	17-3012.02	ESTIMATOR AND DRAFTER	8000	Time-Based	
0175	51-5022.03	ETCHER, HAND (Prt & Pub)	10000	Time-Based	
0182	51-5022.03	ETCHER, PHOTOENGRAVING	8000	Time-Based	
0184	51-4061.00	EXPER MECH MOTOR & BIKES	8000	Time-Based	
0183	51-9061.01	EXPERIMENTAL ASSEMBLER	4000	Time-Based	
1000	37-2021.00	EXTERMINATOR, TERMITE	4000	Time-Based	86-11
0185	51-4021.00	EXTRUDER OPERATOR (Plastics)	2000	Time-Based	
0833	51-2041.01	FABRICATOR-ASSEMBLER METAL PROD	8000	Time-Based	
0672	49-9098.00	FACILITIES LOCATOR	4000	Time-Based	94-11
1056	11-9141.00	FACILITY MANAGER	4000	Comp-Based	03-28
0187	49-3041.00	FARM EQUIPMENT MECH I	6000	Time-Based	
0789	49-3041.00	FARM EQUIPMENT MECH II	8000	Time-Based	
0177	11-9012.00	FARMER, GENERAL (Agric)	8000	Time-Based	
0981	45-2091.00	FARM WORKER, GENERAL I	2000	Time-Based	84-22
0808	51-4022.00	FASTENER TECHNOLOGIST	6000	Time-Based	80-01
0711	47-4031.00	FENCE ERECTOR	6000	Time-Based	98-02

RAIS	O*NET/SOC			TYPE OF
CODE	CODE	OCCUPATIONAL TITLE	TERM	TRAINING BULLETIN(S
0960	27-4012.00	FIELD ENGINEER (Radio & TV)	8000	Time-Based
0916	49-2094.00	FIELD SERVICE ENGINEER	4000	Time-Based 82-04
0921	51-9132.00	FILM DEVELOPER	6000	Time-Based
0907	51-9132.00	FILM LAB TECHNICIAN	6000	Time-Based
0908	51-9131.04	FILM LAB TECHNICIAN I	6000	Time-Based
0127	27-4032.00	FILM OR VIDEOTAPE EDITOR	8000	Time-Based
1083CB	43-3051.00	FINANCIAL MANAGEMENT	2000	Comp-Based 04-19
0181	51-9081.00	FINISHER, DENTURE	2000	Time-Based
0535	33-2011.01	FIRE APPARATUS ENGINEER	6000	Time-Based 88-33
0576	33-1021.01	FIRE CAPTAIN	6000	Time-Based 89-17
0541	33-2011.01	FIRE ENGINEER	2000	Time-Based 88-33
0195	33-2011.01	FIRE FIGHTER	6000	Time-Based
0192	33-2011.01	FIRE FIGHTER, CRASH, FIRE	2000	Time-Based
0516	33-2021.01	FIRE INSPECTOR	8000	Time-Based 88-25
0754	33-2011.01	FIRE MEDIC	6000	Time-Based 79-25
0193	55-3014.00	FIRE-CONTROL MECHANIC	4000	Time-Based
0188	51-9051.00	FIRER, KILN (Pottery & Porc)	6000	Time-Based 79-07
1052	51-8021.01	FIRER, MARINE	2115.5	Time-Based
0902	33-3031.00	FISH & GAME WARDEN (Gov Ser)	4000	Time-Based 82-23
1024	45-2093.00	FISH HATCHERY WORKER	2000	Time-Based 98-08
0197	51-2041.02	FITTER (Mach Shop)	4000	Time-Based
0189	51-2041.02	FITTER I (Any Ind)	6000	Time-Based
0198	51-4041.00	FIXTURE MAKER (Light Fix)	4000	Time-Based
0201	47-2042.00	FLOOR COVER LAYER(RR Equip)	6000	Time-Based
0199	47-2042.00	FLOOR LAYER	6000	Time-Based
0202	27-1023.00	FLORAL DESIGNER	2000	Time-Based 78-08
0194	51-5011.01	FOLDING MACHINE OPERATOR	4000	Time-Based
0203	49-9041.00	FORGE-SHOP-MACHINE REPAIRER	6000	Time-Based
0196	51-4022.00	FORGING-PRESS OPERATOR I	2000	Time-Based
0206	47-2031.02	FORM BUILDER (Const)	4000	Time-Based
0200	51-2041.01	FORMER, HAND (Any Ind)	4000	Time-Based
0048	51-9041.01	FORMING-MACHINE OPERATOR	8000	Time-Based
0207	17-2131.00	FOUNDRY METALLURGIST	8000	Time-Based
0204	51-9012.00	FOURDRINIER-MACHINE OPER	6000	Time-Based
0208	51-4081.01	FOUR-SLIDE-MACHINE SETTER	4000	Time-Based
0211	51-9193.00	FREEZER OPERATOR (Dairy)	2000	Time-Based
0215	49-9063.02	FRETTED INSTRUMENT REPAIRER	6000	Time-Based
0209	49-3023.02	FRONT-END MECHANIC	8000	Time-Based
0922	49-3023.02	FUEL INJECTION SERVICER	8000	Time-Based
0610	49-9041.00	FUEL SYSTEM MAINT WORKER	4000	Time-Based 90-26
0220	51-9031.00	FUR CUTTER	4000	Time-Based
0224	27-1022.00	FUR DESIGNER	8000	Time-Based
0210	51-6031.01	FUR FINISHER	4000	Time-Based
0794	49-9021.01	FURNACE INSTALLER	6000	Time-Based
0678	49-9021.01	FURNACE INSTALLER & REPAIRER	8000	Time-Based
0944	51-4051.00	FURNACE OPERATOR	8000	Time-Based
0225	27-1021.00	FURNITURE DESIGNER	8000	Time-Based
0212	51-7021.00	FURNITURE FINISHER	6000	Time-Based
0213	51-6093.00	FURNITURE UPHOLSTERER	8000	Time-Based
0214	51-6052.02	FURRIER	8000	Time-Based
0228	51-9032.02	GANG SAWYER, STONE	4000	Time-Based
0917	49-9031.02	GAS APPLIANCE SERVICER	6000	Time-Based

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0594	49-9012.02	GAS UTILITY WORKER	4000	Time-Based	90-14
0230	49-3053.00	GAS-ENGINE REPAIRER	8000	Time-Based	
0964	47-2152.01	GAS-MAIN FITTER	8000	Time-Based	
0331	49-9012.03	GAS-METER MECHANIC I	6000	Time-Based	
0232	49-9012.02	GAS-REGULATOR REPAIRER	6000	Time-Based	
0226	51-8093.03	GAUGER (Petrol Prod)	4000	Time-Based	
0241	51-4081.01	GEAR HOBBER SETUP OPERATOR	8000	Time-Based	
0664	51-4081.01	GEARCUT-MACH SET-UP OP TOO	6000	Time-Based	
0234	51-4081.01	GEAR-CUTTING-MACH SETUP OPER	6000	Time-Based	
0242	51-9071.06	GEM CUTTER (Jewelry)	6000	Time-Based	
0217	17-3031.02	GEODETIC COMPUTATOR	4000	Time-Based	
0218	51-9195.04	GLASS BENDER (Fab Nec)	8000	Time-Based	
0219	51-9195.04	GLASS BLOWER	6000	Time-Based	
0768	51-9195.04	GLASS BLOWER, LAB APPARATUS	8000	Time-Based	
0714	49-3022.00	GLASS INSTALLER (Auto Serv)	4000	Time-Based	
0243	51-9195.04	GLASS-BLOWING-LATHE OPERAT	8000	Time-Based	
0221	47-2121.00	GLAZIER	6000	Time-Based	
0222	47-2121.00	GLAZIER, STAINED GLASS	8000	Time-Based	
0984	51-9061.05	GRADER (Woodworking)	8000	Time-Based	84-41
0010	27-1024.00	GRAPHIC DESIGNER	3000	Time-Based	
0934	37-3011.00	GREENSKEEPER II	4000	Time-Based	78-42
0244	51-4033.01	GRINDER I (Clock & Watch)	8000	Time-Based	
0671	51-4194.00	GRINDER OP TOOL PRECISION	8000	Time-Based	
0635	51-4033.01	GRINDER SET-UP OP, JIG	8000	Time-Based	92-09
0974	51-4194.00	GRINDER SET-UP OPERATOR, UNIVERSAL	8000	Time-Based	
0695	33-9032.00	GUARD, SECURITY	3000-6000	Hybrid	95-06
0229	51-4081.01	GUNSMITH	8000	Time-Based	
0096A	39-5012.00	HAIR STYLIST (Cosmetologist)	2000	Time-Based	04-20
0245	51-6041.00	HARNESS MAKER	6000	Time-Based	
0248	51-7011.00	HARPSICHORD MAKER	4000	Time-Based	
0253	51-7011.00	HAT-BLOCK MAKER (Woodwork)	6000	Time-Based	
0591	47-4099.99	HAZARDOUS-WASTE MATERIAL TECH	4000	Time-Based	90-04
0831	51-7041.01	HEAD SAWYER	6000	Time-Based	80-44
0602	29-2099.99	HEALTH CARE SANITARY TECH	2000	Time-Based	90-16
1084	43-9061.00	HEALTH UNIT COORDINATOR	2000	Time-Based	04-21
0257	17-3027.00	HEAT TRANSFER TECHNICIAN	8000	Time-Based	
0233	51-4191.02	HEAT TREATER I	8000	Time-Based	
0637	49-9021.01	HEATING & AIR-COND INST-SERV	6000	Time-Based	
0947	51-4022.00	HEAVY FORGER	8000	Time-Based	
1074CB	19-3093.00	HISTORIAN	2500	Comp-Based	04-19
1001	39-2011.00	HORSE TRAINER	2000	Time-Based	86-14
0235	39-2021.00	HORSESHOER	4000	Time-Based	
0236	19-1013.01	HORTICULTURIST	6000	Time-Based	
1035	43-4081.00	HOTEL ASSOCIATE	4000	Time-Based	00-02
0943	37-2012.00	HOUSEKEEPER, COM, RES, IND	2000	Time-Based	84-24
0651	49-9041.00	HYDRAULIC REPAIRER	8000	Time-Based	93-13
0783	49-9041.00	HYDRAUL-PRESS SERVICR(Ordn)	4000	Time-Based	
0237	49-9041.00	HYDROELECTRIC-MACHINERY ME	6000	Time-Based	
0238	51-8013.01	HYDROELECTRIC-STATION OPER	6000	Time-Based	
0239	51-9061.03	HYDROMETER CALIBRATOR	4000	Time-Based	
0240	27-1013.01	ILLUSTRATOR (Profess & Kin)	8000	Time-Based	
0016	27-1021.00	INDUSTRIAL DESIGNER	8000	Time-Based	81-07

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0259	17-3026.00	INDUSTRIAL ENGINEERING TECH	8000	Time-Based	
1037	49-9041.00	INDUSTRIAL MACH SYS TECH	4000	Time-Based	00-07
1060CB	15-1071.01	INFORMATION ASSURANCE SPECIALIST	6000	Comp-Based	04-09
1073CB	43-9022.00	INFORMATION MANAGEMENT (WD Proc)	2000	Comp-Based	04-19
0246	51-4072.01	INJECTION-MOLDING-MACH OP	2000	Time-Based	
0941	47-4011.00	INSPECTOR, BUILDING	6000	Time-Based	84-17
0968	51-9061.03	INSPECTOR, ELECTROMECHANIC	8000	Time-Based	
0697	51-9061.01	INSPECTOR, METAL FABRICATE	8000	Time-Based	96-01
0581	53-6051.05	INSPECTOR, MOTOR VEHICLES	4000	Time-Based	89-29
0380	51-9061.01	INSPECTOR, OUTSIDE PRODUCT	8000	Time-Based	
0424	51-9061.03	INSPECTOR, PRECISION	4000	Time-Based	
0636	51-9061.01	INSPECTOR, SET-UP & LAY-OUT	8000	Time-Based	88-01
0992	13-1041.04	INSPECTOR, QUALITY ASSURANCE	6000	Time-Based	80-12
0775	17-3023.02	INSTRUMENT REPAIRER (Any Ind)	8000	Time-Based	
0251	51-4041.00	INSTRUMENT MAKER	8000	Time-Based	
0254	51-4041.00	INSTRUMENT MAKER & REPAIRER	10000	Time-Based	
0644	17-3023.02	INSTRUMENT MECHANIC (Any Ind)	8000	Time-Based	
0255	17-3023.02	INSTRUMENTATION TECHNICIAN	8000	Time-Based	
0996	17-3023.02	INSTRUMENT MECH, WEAPONS SYS	8000	Time-Based	
0252	17-3023.02	INSTRUMENT TECHNICIAN (Utilities)	8000	Time-Based	
0909	47-2131.00	INSULATION WORKER	8000	Time-Based	
0265	27-1025.00	INTERIOR DESIGNER	4000	Time-Based	
1038	15-1081.00	INTERNETWORKING TECHNICIAN	5000	Time-Based	00-09/00-9a
0579	33-9021.00	INVESTIGATOR, PRIVATE	2000	Time-Based	89-28
1059CB	15-1099.99	IT GENERALIST	2880	Comp-Based	04-08
1048CB	11-3021.00	IT PROJECT MANAGER	6000	Comp-Based	03-09
0270	51-6063.00	JACQUARD-LOOM WEAVER	8000	Time-Based	
0258	51-6063.00	JACQUARD-PLATE MAKER	2000	Time-Based	
0260	51-9071.01	JEWELER	4000	Time-Based	
0261	51-7031.00	JIG BUILDER (Wood Contain)	4000	Time-Based	
0262	51-5021.00	JOB PRINTER	8000	Time-Based	
0264	47-2031.04	JOINER (Ship & Boat Bldg)	8000	Time-Based	
0266	51-9051.00	KILN OPERATOR (Woodworking)	6000	Time-Based	
0273	51-6063.00	KNITTER MECHANIC	8000	Time-Based	
0850	51-6063.00	KNITTING MACHINE FIXER	8000	Time-Based	
0267	19-4091.00	LABORATORY ASSISTANT	6000	Time-Based	77-36
0621	17-3029.99	LABORATORY ASST, METALLURGICAL	4000	Time-Based	
0268	19-4031.00	LABORATORY TECHNICIAN	2000	Time-Based	
0269	19-4031.00	LABORATORY TESTER	4000	Time-Based	
0271	37-3011.00	LANDSCAPE GARDENER	8000	Time-Based	
0574	37-3011.00	LANDSCAPE MANAGEMENT TECH	2000	Time-Based	89-14
0571	37-3011.00	LANDSCAPE TECHNICIAN	4000	Time-Based	89-14
0275	51-7011.00	LAST-MODEL MAKER	8000	Time-Based	
0272	47-2031.01	LATHER	6000	Time-Based	
0691	49-9041.00	LAUNDRY-MACHINE MECHANIC	6000	Time-Based	
0554	51-9083.01	LAY-OUT TECHNICIAN	8000	Time-Based	
0825	51-4192.00	LAY-OUT WORKER I (Any Ind)	8000	Time-Based	
0274	51-4121.03	LEAD BURNER	8000	Time-Based	
0935	51-6041.00	LEATHER STAMPER	2000	Time-Based	
0800	43-6012.00	LEGAL SECRETARY	2000	Time-Based	78-51
0280	51-5023.01	LETTERER (Profess & Kin)	4000	Time-Based	
0276	27-4011.00	LIGHT TECHNICIAN	8000	Time-Based	

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0281	49-9051.00	LINE ERECTOR	6000	Time-Based	
0282	49-9052.00	LINE INSTALLER-REPAIRER	8000	Time-Based	
0283	49-9051.00	LINE MAINTAINER	8000	Time-Based	
0284	49-9051.00	LINE REPAIRER	6000	Time-Based	
0279	51-9123.00	LINER (Pottery & Porc)	6000	Time-Based	
0286	51-5022.12	LINOTYPE OPERATOR (Prt & Pub)	10000	Time-Based	
0063	51-5022.07	LITHOGRAPHIC PLATEMAKER	8000	Time-Based	
0683	51-5023.04	LITHOGRAPH-PRESS OPER, TIN	8000	Time-Based	
1047	51-8012.00	LOAD DISPATCHER	8000	Time-Based	03-04
0289	49-9094.00	LOCKSMITH	8000	Time-Based	
0287	53-4011.00	LOCOMOTIVE ENGINEER	8000	Time-Based	
0290	51-7031.00	LOFT WORKER (Ship & Boat)	8000	Time-Based	
0900	45-4021.00	LOGGER, ALLROUND	4000	Time-Based	79-23
0299	49-3042.00	LOGGING-EQUIPMENT MECHANIC	8000	Time-Based	
0632	17-2112.00	LOGISTICS ENGINEER	8000	Time-Based	91-16
0841	51-6063.00	LOOM FIXER	6000	Time-Based	
1050	49.9099.99	LUBRICATION SVCR.MTRLS DISP TECH	4000	Time-Based	03-10
0301	51-2031.00	MACHINE ASSEMBLER	4000	Time-Based	
0291	51-2031.00	MACHINE BUILDER	4000	Time-Based	79-65
0293	49-9044.00	MACHINE ERECTOR	8000	Time-Based	
0305	51-6064.00	MACHINE FIXER (Textile)	6000	Time-Based	
0302	49-9041.00	MACHINE FIXER (Carpet & Rug)	8000	Time-Based	
0511	51-4081.01	MACHINE OPERATOR I	2000	Time-Based	
0292	49-9041.00	MACHINE REPAIRER, MAINTEN	8000	Time-Based	
0938	51-4081.01	MACHINE SETTER (Any Ind)	8000	Time-Based	
0317	51-4081.01	MACHINE SETTER (Clock)	8000	Time-Based	
0263	51-4081.01	MACHINE SETTER (Mach Shop)	6000	Time-Based	
0321	51-7042.01	MACHINE SETTER (Woodwork)	8000	Time-Based	
0327	51-9196.00	MACHINE SET-UP OPER, PAPER	8000	Time-Based	
0958	51-4081.01	MACHINE SET-UP OPERATOR	4000	Time-Based	
0659	51-4081.01	MACHINE TRYOUT SETTER	8000	Time-Based	
0296	51-4041.00	MACHINIST	8000	Time-Based	
0294	51-4041.00	MACHINIST, AUTOMOTIVE	8000	Time-Based	
0295	51-4041.00	MACHINIST, EXPERIMENTAL	8000	Time-Based	
0297	49-9041.00	MACHINIST, LINOTYPE	8000	Time-Based	
0298	49-3031.00	MACHINIST, MARINE ENGINE	8000	Time-Based	
0191	49-9061.00	MACHINIST, MOTIONPIC EQUIP	4000	Time-Based	
0300	51-4041.00	MACHINIST, OUTSIDE (Ship)	8000	Time-Based	
0303	51-7011.00	MACHINIST, WOOD	8000	Time-Based	
0304	43-9051.02	MAILER	8000	Time-Based	
0308	49-9041.00	MAINT MECH (Any Ind)	8000	Time-Based	
0022	49-3031.00	MAINT MECH (Const; Petrol)	8000	Time-Based	
0307	49-9041.00	MAINT MECH (Grain & Feed)	4000	Time-Based	
0311	49-9042.00	MAINT REPAIRER, INDUSTRIAL	8000	Time-Based	79-28
0306	51-4041.00	MAINTENANCE MACHINIST	8000	Time-Based	
0020	49-9041.00	MAINTENANCE MECH, COMPGAS	8000	Time-Based	
0309	49-2022.05	MAINTENANCE MECHANIC, TELE	6000	Time-Based	
0310	49-9042.00	MAINTENANCE REPAIRER, BUILD	4000	Time-Based	78-56
1049	47-2061.00	MAINTENANCE TECH MUNICIPAL	4000	Time-Based	03-11
0593	11-9051.00	MANAGER, FOOD SERVICE	6000	Time-Based	90-14
1061	37-1011.01	MANAGER, HOUSEHOLD (Private Residence)	4000	Time-Based	
0578	41-1011.00	MANAGER, RETAIL STORE	6000	Time-Based	89-18

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0973	47-3011.00	MARBLE FINISHER	4000	Time-Based	81-13
0313	47-2022.00	MARBLE SETTER	6000	Time-Based	
0946	49-9042.00	MARINE SERVICES TECHNICIAN	6000	Time-Based	81-27
0856	43-5061.00	MATERIAL COORDINATOR	4000	Time-Based	
0328	17-2131.00	MATERIALS ENGINEER	10000	Time-Based	
0316	51-3021.00	MEAT CUTTER	6000	Time-Based	
0777	17-3027.00	MECH ENGINEERING TECHNICIAN	8000	Time-Based	
0319	49-3042.00	MECHANIC, ENDLESS TRACK VEH	8000	Time-Based	
0153	49-3031.00	MECHANIC, INDUSTRIAL TRUCK	8000	Time-Based	
0337	49-3043.00	MECHANICAL-UNIT REPAIRER	8000	Time-Based	
0751	43-6013.00	MEDICAL SECRETARY	2000	Time-Based	77-42
0323	29-2012.00	MEDICAL-LABORATORY TECH	4000	Time-Based	77-42
0325	51-2041.01	METAL FABRICATOR	8000	Time-Based	
0329	49-2094.00	METEOROLOGICAL EQUIP REPR	8000	Time-Based	
0940	19-2021.00	METEOROLOGIST	6000	Time-Based	80-13
0332	49-9012.03	METER REPAIRER (Any Ind)	6000	Time-Based	
1078CB	13-1041.03	MILITARY EQUAL OPPORTUNITY (MEO)	2000	Comp-Based	04-19
0333	51-9021.00	MILLER, WET PROCESS	6000	Time-Based	
0334	51-4035.00	MILLING MACHINE SET-UP OP	4000	Time-Based	79-65
0335	49-9044.00	MILLWRIGHT	8000	Time-Based	
1028	17-2151.00	MINE INSPECT. (Gov) Metal-Nonmetal	8000	Time-Based	99-05
1029	17-2151.00	MINE INSPECTOR (Gov) Coal	8000	Time-Based	99-05
0350	49-3043.00	MINE-CAR REPAIRER	4000	Time-Based	
0354	47-5081.00	MINER I (Mine & Quarry)	2000	Time-Based	
0358	51-4061.00	MOCKUP BUILDER (Aircraft)	8000	Time-Based	
0343	51-9199.99	MODEL & MOLD MAKER (Brick)	4000	Time-Based	
0344	51-9199.99	MODEL & MOLD MAKER, PLASTR	8000	Time-Based	
0339	51-4061.00	MODEL BUILDER (Furn)	4000	Time-Based	
0341	51-7031.00	MODEL MAKER (Aircraft)	8000	Time-Based	
0491	51-4061.00	MODEL MAKER (Auto Mfg)	8000	Time-Based	
0363	51-4061.00	MODEL MAKER (Clock & Watch)	8000	Time-Based	
0340	51-9195.05	MODEL MAKER (Pottery & Porc)	4000	Time-Based	
0773	51-9071.03	MODEL MAKER II (Jewelry)	8000	Time-Based	
0780	51-4061.00	MODEL MAKER, FIREARMS	8000	Time-Based	
0342	51-7031.00	MODEL MAKER, WOOD	8000	Time-Based	
1030	17-3013.00	MOLD DESIGNER (Plastics Ind)	4000	Time-Based	99-03
0345	51-9195.06	MOLD MAKER (Pottery & Porc)	6000	Time-Based	
0346	51-9071.03	MOLD MAKER I (Jewelry)	8000	Time-Based	
0347	51-9071.03	MOLD MAKER II (Jewelry)	4000	Time-Based	
0116	51-4111.00	MOLD MAKER, DIE-CAST & PLAST	8000	Time-Based	
0348	51-4072.01	MOLD SETTER	2000	Time-Based	
0349	51-4071.00	MOLDER	8000	Time-Based	
0351	51-9195.02	MOLDER, PATTERN (Foundry)	8000	Time-Based	
0367	51-5022.12	MONOTYPE-KEYBOARD OPERATOR	6000	Time-Based	
0352	47-2022.00	MONUMENT SETTER (Const)	8000	Time-Based	
0353	47-2044.00	MOSAIC WORKER	6000	Time-Based	
0355	49-3051.00	MOTORBOAT MECHANIC	6000	Time-Based	
0356	49-3052.00	MOTORCYCLE REPAIRER	6000	Time-Based	
0932	47-2073.01	MOTOR-GRADER OPERATOR	6000	Time-Based	
0371	51-4022.00	MULTI-OPERATION-MACHINE OP	6000	Time-Based	
0688	37-2011.00	MULTI-STORY WINDOW/BUILD	6000	Time-Based	95-04
0931	51-4199.99	MULTO-PER FORM MACH SETTER	8000	Time-Based	

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
1071CB	47-5031.00	MUNITIONS SYSTEMS	2000	Comp-Based	04-19
0692	47-2111.00	NEON-SIGN SERVICER	8000	Time-Based	
1010	17-3029.99	NON-DESTRUCTIVE TESTER	2000	Time-Based	88-10
1010CB	17-3029.99	NON-DESTRUCTIVE TESTER	4000	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Radiographic Tech/Lev I	500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Radiographic Tech/Lev II	1500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Radgraph Tech/Lev II Lim	1500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Penetrant Tech/Level I	166	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST Penetrant Tech/Level II	332	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Penetrant Tech/Level II Lim	332	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Magnetic Particle Tech/Lev I	166	Comp-Based	05-01
1010CB	17-3029.99	NON-DESTE TEST/Magnet Part Tech/Lev II	500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Ultrasonic Tech/Level I	500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Ultrasonic Tech/Level II	1500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Ultra Tech/Level II Lim	1000	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Visual Tech/Level I	166	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Visual Tech/Level II	332	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Eddy Current Tech/Level I	500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Eddy Current Tech/Level II	1500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Acoustic Emm Tech/Level I	500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Acoustic Emm Tech/Level II	1500	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Thermal Infrared Tech/Lev I	166	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Therm Infrared Tech/Lev II	332	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Leak Test Bubble Tech/Lev I	2	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Leak Test Buble Tech/Lev II	83	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Lk Tst Pres Chng Tech/Lev I	250	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Lk Tst Pres Chng Tec/Lev II	655	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Lk Tst Halogen Diode/Lev I	250	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Lk Tst Halogen Diode/Lev II	665	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TEST/Lk Tst Mass Spec Tec/Lev I	665	Comp-Based	05-01
1010CB	17-3029.99	NON-DEST TESTER/LkTst Mass Sp Tec/Lev II	1000	Comp-Based	05-01
0845	51-4011.01	NUMERICAL CONTROL MACH OP	8000	Time-Based	
0824	31-1012.00	NURSE ASSISTANT	2000	Time-Based	79-16
0824CB	31-1012.00	NURSE ASST CERTIFIED/CNA/LEVEL 1	300-600	Comp-Based	04-11
0824CB	31-1012.00	NURSE ASST CERTIFIED/CNA/LEVEL 2 (Adv)	300-600	Comp-Based	04-11
0824CB	31-1012.00	NURSE ASST CERT/CNA/LEVEL 3 (Ger Spec)	1000	Comp-Based	04-11
0824CB	31-1012.00	NURSE ASST CERT/CNA/LEVEL 3 (Rest Spec	1000	Comp-Based	04-11
0824CB	31-1012.00	NURSE ASST CERT/CNA/LEVEL 3 (Dem Spec	1000	Comp-Based	04-11
0824CB	31-1012.00	NURSE ASST CERT/CNA/LEVEL 4 (Men Spec	1000	Comp-Based	04-11
0824CB	31-1012.00	NURSING ASSISTANT CERTIFIED	6000	Comp-Based	04-11
0837	29-2061.00	NURSE, LICENSED PRACTICAL	2000	Time-Based	81-26
1033	11-3011.00	OFFICE MANAGER/ADMIN SERVICES	4000	Time-Based	99-17
0359	49-2011.03	OFFICE-MACHINE SERVICER	6000	Time-Based	
0361	51-5023.02	OFFSET-PRESS OPERATOR I	8000	Time-Based	
0966	49-9021.01	OIL BURNER-SERVICER & INST	4000	Time-Based	
0364	49-3031.00	OIL FIELD EQUIP MECHANIC	4000	Time-Based	
0365	47-2073.02	OPERATING ENGINEER	6000	Time-Based	
0959	51-9061.01	OPERATIONAL TEST MECHANIC	6000	Time-Based	
1064CB	53-2022.00	OPERATIONS RESOURCE FLIGHT/Jum Mng	2500	Comp-Based	04-19
1066CB	55-3015.00	OPERATIONS INTELLIGENCE	2000	Comp-Based	04-19
0250	51-9083.02	OPTICAL INSTRUMENT ASSEMBLY	4000	Time-Based	
0032	51-9083.01	OPTICIAN (Op Gds; Ret Tr)	10000	Time-Based	

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0377	51-9083.02	OPTICIAN (Optical Goods)	8000	Time-Based	
0089	29-2081.00	OPTICIAN DISPENSING	4000	Time-Based	
0368	17-3027.00	OPTOMECHANICAL TECHNICIAN	8000	Time-Based	
0372	55-3014.00	ORDNANCE ARTIFICER (Gov Ser)	6000	Time-Based	
0373	47-4099.99	ORNAMENTAL IRON WORKER	6000	Time-Based	
0374	51-4081.01	ORNAMENTAL METAL WORKER	8000	Time-Based	
0910	51-6041.00	ORTHO-BOOT-SHOE DESIGNER	10000	Time-Based	
0375	51-9081.00	ORTHODONTIC TECHNICIAN	4000	Time-Based	
0911	51-9082.00	ORTHOTICS TECHNICIAN	2000	Time-Based	
0458	29-2091.00	ORTHOTIST	8000	Time-Based	
0378	49-3051.00	OUTBOARD-MOTOR MECHANIC	4000	Time-Based	
0384	49-9041.00	OVERHAULER (Textile)	4000	Time-Based	
0379	47-2141.00	PAINTER (Const)	6000	Time-Based	
0626	27-1013.01	PAINTER (Profess & Kin)	2000	Time-Based	
0383	51-9123.00	PAINTER, HAND (Any Ind)	6000	Time-Based	
0385	47-2141.00	PAINTER, SHIPYARD	6000	Time-Based	
0386	51-9199.99	PAINTER, SIGN	8000	Time-Based	
0381	51-9122.00	PAINTER, TRANS EQUIPMENT	6000	Time-Based	
0389	51-4035.00	PANTOGRAPH-MACHINE SET-UP OPER	4000	Time-Based	
0390	47-2142.00	PAPERHANGER	4000	Time-Based	
1003	23-2011.00	PARALEGAL	6000	Time-Based	86-20
0543	29-2041.00	PARAMEDIC	4000	Time-Based	88-33
0392	51-5022.02	PASTE-UP ARTIST	6000	Time-Based	
0710	51-6092.00	PATTERMAKER (Textiles)	6000	Time-Based	
0394	51-4062.00	PATTERNMAKER (Metal Prod)	8000	Time-Based	
0796	51-4062.00	PATTERNMAKER (Stonework)	8000	Time-Based	
0857	51-4062.00	PATTERNMAKER, ALL-AROUND	10000	Time-Based	82-31
0395	51-4062.00	PATTERNMAKER, METAL	10000	Time-Based	
0396	51-4062.00	PATTERNMAKER, METAL, BENCH	10000	Time-Based	
0397	51-9199.99	PATTERNMAKER, PLASTER	6000	Time-Based	
0923	51-4062.00	PATTERNMAKER, PLASTICS	6000	Time-Based	
0398	51-7032.00	PATTERNMAKER, WOOD	10000	Time-Based	
1042	47-2141.00	PAVEMENT STRIPER	4000	Time-Based	02-03
1077CB	43-4161.00	PERSONNEL SYSTEMS MANAGEMENT	2000	Comp-Based	04-19
0982	51-9071.05	PEWTER CASTER	6000	Time-Based	
0986	51-9071.05	PEWTER FABRICATOR	8000	Time-Based	84-49
0983	51-9071.05	PEWTER FINISHER	4000	Time-Based	84-49
0988	51-9071.05	PEWTERER	4000	Time-Based	84-49
0844	29-2052.00	PHARMACIST ASSISTANT	2000	Time-Based	80-38
0285	43-9021.00	PHOTOCOMPOSING-PERFORAT-MA	4000	Time-Based	
0399	51-5022.03	PHOTOENGRAVER	10000	Time-Based	
0400	51-5022.03	PHOTOENGRAVING FINISHER	10000	Time-Based	
0401	51-5022.03	PHOTOENGRAVING PRINTER	10000	Time-Based	
0402	51-5022.03	PHOTOENGRAVING PROOFER	10000	Time-Based	
0924	49-9061.00	PHOTO-EQUIPMENT TECHNICIAN	6000	Time-Based	
0546	17-3031.02	PHOTOGRAMMETRIC TECHNICIAN	6000	Time-Based	89-04
0912	51-9131.01	PHOTOGRAPH RETOUCHER	6000	Time-Based	
0685	51-5022.04	PHOTOGRAPHER, LITHOGRAPHIC	10000	Time-Based	
0405	51-5022.03	PHOTOGRAPHER, PHOTOENGRAV	12000	Time-Based	
0403	27-4021.01	PHOTOGRAPHER, STILL	6000	Time-Based	
0563	49-9061.00	PHOTOGRAPHIC EQUIP MAINTEN	6000	Time-Based	
0407	51-5022.07	PHOTOGRAPHIC-PLATE MAKER	8000	Time-Based	
0107	51 5022.07	I I I I I I I I I I I I I I I I I I I	0000	I IIIIC Daboa	

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0408	49-9063.01	PIANO TECHNICIAN	8000	Time-Based	
0793	49-9063.01	PIANO TUNER	6000	Time-Based	
0623	53-5021.03	PILOT, SHIP	3000	Time-Based	
0387	49-9041.00	PINSETTER ADJUSTER, AUTOMATIC	6000	Time-Based	
0985	49-9043.00	PINSETTER MECH, AUTOMATIC	4000	Time-Based	84-50
0411	47-2132.00	PIPE COVERER & INSULATOR	8000	Time-Based	
0414	47-2152.01	PIPE FITTER (Const)	8000	Time-Based	
0412	47-2152.01	PIPE FITTER (Ship & Boat)	8000	Time-Based	
0414S	47-2152.01	PIPE FITTER - SPRINKLER FITTER	8000	Time-Based	03-13
0417	51-7011.00	PIPE ORGAN BUILDER	6000	Time-Based	
0388	49-9063.01	PIPE ORGAN TUNER & REPAIR	8000	Time-Based	
0961	51-9021.00	PLANT OPERATOR	6000	Time-Based	
0393	51-8091.00	PLANT OPERATOR, FURNACE PRO	8000	Time-Based	
0404	51-9195.01	PLASTER PATTERN CASTER	10000	Time-Based	
0423	47-2161.00	PLASTERER	4000	Time-Based	
0843	51-4111.00	PLASTIC FIXTURE BUILDER	8000	Time-Based	
0660	51-4072.01	PLASTIC PROCESS TECHNICIAN	8000	Time-Based	94-02
0426	51-4111.00	PLASTIC TOOL MAKER	8000	Time-Based	
0186	51-9199.99	PLASTICS FABRICATOR	4000	Time-Based	
0427	51-5022.11	PLATE FINISHER (Print & Pub)	12000	Time-Based	
0430	51-5023.03	PLATEN-PRESS OPERATOR	8000	Time-Based	
0431	51-4193.01	PLATER	6000	Time-Based	
0432	47-2152.02	PLUMBER	8000	Time-Based	
0434	49-9041.00	PNEUMATIC TOOL REPAIRER	8000	Time-Based	
0435	49-9041.00	PNEUMATIC TUBE REPAIRER	4000	Time-Based	
0406	31-9092.00	PODIATRIC ASSISTANT	4000	Time-Based	
0437	33-3051.01	POLICE OFFICER I	4000	Time-Based	77-71
0901	51-7041.02	PONY EDGER (Sawmill)	4000	Time-Based	80-44
0596	43-5051.00	POST OFFICE CLERK	4000	Time-Based	90-14
0439	51-9195.05	POTTERY MACHINE OPERATOR	6000	Time-Based	
0443	49-9041.00	POWERHOUSE MECHANIC	8000	Time-Based	
1045	49-3011.02	POWERPLANT MECHANIC	3000	Time-Based	02-19
0440	51-8013.01	POWER-PLANT OPERATOR	8000	Time-Based	
0441	49-3053.00	POWER-SAW MECHANIC	6000	Time-Based	
0442	49-2092.04	POWER-TRANSFORMER REPAIRER	8000	Time-Based	
0410	51-2011.02	PRECISION ASSEMBLER	6000	Time-Based	
0962	51-2023.00	PRECISION ASSEMBLER, BENCH	4000	Time-Based	
0277	51-9083.01	PRECISION-LENS GRINDER	8000	Time-Based	
0928	51-4031.03	PRESS OPERATOR HEAVY DUTY	8000	Time-Based	
0452	51-5023.04	PRINTER, PLASTIC	8000	Time-Based	
0451	51-5023.09	PRINTER-SLOTTER OPERATOR	8000	Time-Based	
1058CB	13-1061.00	PRODUCTION CONTROLLER	4000	Comp-Based	04-07
1023	51-9121.01	PRODUCTION FINISHER	4000	Time-Based	98-05
1027CB	51-2092.00	PRODUCTION TECHNOLOGIST	СВ	Comp-Based	99-10
0913	27-2012.01	PROGRAM ASSISTANT	6000	Time-Based	78-41
0949	15-1021.00	PROGRAMMER, ENGR & SCIENTIFIC	8000	Time-Based	
0413	51-9131.02	PROJECTION PRINTER	8000	Time-Based	
0288	51-5023.09	PROOF-PRESS OPERATOR	10000	Time-Based	
0415	51-5022.01	PROOFSHEET CORRECTOR (Prt)	8000	Time-Based	
0455	47-2031.01	PROP MAKER (Amuse & Rec)	8000	Time-Based	
0456	49-2092.02	PROPULSION MOTOR & GENERAT	8000	Time-Based	
0416	47-5012.00	PROSPECTING DRILLER (Petro)	4000	Time-Based	

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0376	51-9082.00	PROSTHETICS TECHNICIAN	8000	Time-Based	
0418	29-2091.00	PROSTHETIST (Medical serv)	8000	Time-Based	
0459	47-2111.00	PROTECTIVE-SIGNAL INSTALLER	8000	Time-Based	
0006	47-2111.00	PROTECTIVE-SIGNAL REPAIRER	6000	Time-Based	
0846	51-4061.00	PROTOTYPE MODEL MAKER	8000	Time-Based	82-32
0646	49-2022.01	PRVTE-BRANCH EXCH INSTALLER	8000	Time-Based	
1006	49-2022.01	PRVTE-BRANCH EXCH REPAIRER	8000	Time-Based	
1076CB	39-9041.00	PUBLIC AFFAIRS	2500	Comp-Based	04-19
1080CB	29-9012.00	PUBLIC HEALTH	2500	Comp-Based	04-19
0419	49-9041.00	PUMP ERECTOR (Const)	4000	Time-Based	
0933	49-9041.00	PUMP SERVICER	6000	Time-Based	
0950	53-7121.00	PUMPER-GAUGER	6000	Time-Based	76-23
0948	13-1023.00	PURCHASING AGENT	8000	Time-Based	84-35
0461	51-9012.00	PURIFICATION OPERATOR II	8000	Time-Based	
0936	51-9061.01	QUALITY CONTROL INSPECTOR	4000	Time-Based	
0462	17-3026.00	QUALITY CONTROL TECHNICIAN	4000	Time-Based	78-57
1007	19-4051.02	RADIATION MONITOR	8000	Time-Based	87-14
0465	49-2021.00	RADIO MECHANIC (Any Ind)	6000	Time-Based	
0466	49-2097.00	RADIO REPAIRER (Any ind)	8000	Time-Based	
0952	27-4013.00	RADIO STATION OPERATOR	8000	Time-Based	
0468	51-9061.01	RADIOGRAPHER	8000	Time-Based	
0926	27-4014.00	RECORDING ENGINEER	4000	Time-Based	
0420	51-9012.00	RECOVERY OPERATOR (Paper)	2000	Time-Based	
0852	51-8093.02	REFINERY OPERATOR	6000	Time-Based	88-01
0666	49-9021.02	REFRIGERATION MECH (Any Ind)	6000	Time-Based	
0918	49-9021.02	REFRIGERATION UNIT REPAIRER	6000	Time-Based	
0471	47-2171.00	REINFORCING METAL WORKER	6000	Time-Based	
0975	49-2095.00	RELAY TECHNICIAN	4000	Time-Based	
0687	51-9061.04	RELAY TESTER	8000	Time-Based	
0674	49-9041.00	REPAIRER I (Chem)	8000	Time-Based	
0421	49-2092.06	REPAIRER, HANDTOOLS	6000	Time-Based	
0997	49-3023.01	REPAIRER, HEAVY	4000	Time-Based	
0807	49-3092.00	REPAIRER, RECREATIONAL VEH	8000	Time-Based	78-07
0422	49-9041.00	REPAIRER, WELDING EQUIPMENT	4000	Time-Based	
1005	49-9041.00	REPAIRER, WELDING SYS & EQ	6000	Time-Based	87-07
0092	51-9131.02	REPRODUCTION TECHNICIAN	2000	Time-Based	79-63
0788	17-3021.00	RESEARCH MECH (aircraft)	8000	Time-Based	
0564	47-2031.01	RESIDENTIAL CARPENTER	4000	Time-Based	89-12
1022	47-2111.00	RESIDENTIAL WIREMAN	4800	Time-Based	98-03
0472	51-5022.03	RETOUCHER, PHOTOENGRAVING	10000	Time-Based	
0474	49-9096.00	RIGGER	6000	Time-Based	
0473	49-9096.00	RIGGER (Ship & Boat Bldg)	4000	Time-Based	
0475	51-4041.00	ROCKET MOTOR MECHANIC	8000	Time-Based	
0425	49-3011.02	ROCKET-ENGINE-COMPONENT MEC	8000	Time-Based	
0428	51-4023.00	ROLL THREADER OPERATOR	2000	Time-Based	
0795	51-9194.06	ROLLER ENGRAVER HAND	4000	Time-Based	
0480	47-2181.00	ROOFER	4000	Time-Based	
0481	51-5023.09	ROTOGRAVURE-PRESS OPERATOR	8000	Time-Based	
0429	51-9061.01	RUBBER TESTER	8000	Time-Based	
0485	49-9041.00	RUBBERIZING MECHANIC	8000	Time-Based	
0484	51-9195.07	RUBBER-STAMP MAKER	8000	Time-Based	
0433	37-2019.99	RUG CLEANER, HAND	2000	Time-Based	

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0487	51-6041.00	SADDLE MAKER	4000	Time-Based	
0488	49-9094.00	SAFE & VAULT SERVICE MECH	8000	Time-Based	
0707	29-9011.00	SAFETY INSPECTOR/TECHNICIAN	6000	Time-Based	97-01
0753	41-2022.00	SALESPERSON PARTS	4000	Time-Based	79-09
0490	51-4061.00	SAMPLE MAKER, APPLIANCES	8000	Time-Based	
0436	51-6052.01	SAMPLE STITCHER (Garment)	8000	Time-Based	
0493	51-9195.03	SANDBLASTER, STONE	6000	Time-Based	
0495	51-4194.00	SAW FILER (Any Ind)	8000	Time-Based	
0496	51-4111.00	SAW MAKER (Cutlery & Tools)	6000	Time-Based	
0497	49-9041.00	SCALE MECHANIC	8000	Time-Based	
0855	51-5022.05	SCANNER OPERATOR	4000	Time-Based	88-18
0520	51-9123.00	SCREEN PRINTER	4000	Time-Based	
0506	51-4034.00	SCREW-MACH SET-UP OP,SINGL	6000	Time-Based	
0502	51-4034.00	SCREW-MACH SET-UP OPERATOR	8000	Time-Based	
0500	51-4034.00	SCREW-MACHINE OP, MULTI SPIN	8000	Time-Based	
0444	51-4034.00	SCREW-MACHINE OP,SINGLE SPI	6000	Time-Based	
0445	43-6014.00	SCRIPT SUPERVISOR	2000	Time-Based	81-01
0446	49-3021.00	SERVICE MECHANIC (Auto Mfg)	4000	Time-Based	
0615	49-9098.00	SERVICE PLANNER (Light, Heat)	8000	Time-Based	91-02
1075CB	27-3031.00	SERVICES (Base Facilities)	2500	Comp-Based	04-19
0508	49-9041.00	SEWING MACHINE REPAIRER	6000	Time-Based	
0510	47-2211.00	SHEET METAL WORKER	8000	Time-Based	
0611	51-2041.01	SHIP PROPELLER FINISHER	6000	Time-Based	90-26
0513	51-4192.00	SHIPFITTER (Ship & Boat)	8000	Time-Based	
0979	47-2031.05	SHIPWRIGHT (Ship & Boat)	8000	Time-Based	
0514	51-6041.00	SHOE REPAIRER	6000	Time-Based	
0812	51-6041.00	SHOEMAKER, CUSTOM	6000	Time-Based	
0524	51-9083.01	SHOP OPTICIAN, BENCHROOM	8000	Time-Based	88-23
0526	51-9083.01	SHOP OPTICIAN, SURFACE ROOM	8000	Time-Based	88-23
0515	51-6052.01	SHOP TAILOR	8000	Time-Based	
0447	51-9194.01	SIDEROGRAPHER (Print & Pub)	10000	Time-Based	
0517	47-4099.99	SIGN ERECTOR I	6000	Time-Based	
0518	51-9199.99	SIGN WRITER, HAND	2000	Time-Based	
0942	49-9097.00	SIGNAL MAINTAINER (RR Tran)	8000	Time-Based	
0519	51-9031.00	SILKSCREEN CUTTER	6000	Time-Based	
0522	51-9071.02	SILVERSMITH II	6000	Time-Based	
0448	51-5023.01	SKETCH MAKER I (Print & Pub)	10000	Time-Based	
0523	51-9194.01	SKETCH MAKER II (Print & Pub)	8000	Time-Based	
0525	49-3053.00	SMALL ENGINE MECHANIC	4000	Time-Based	
0449	47-2042.00	SOFT TILE SETTER (Const)	6000	Time-Based	
0450	19-1031.01	SOIL CONSERVATION TECHNICIAN	6000	Time-Based	80-45
0453	51-9071.04	SOLDERER (Jewelry)	6000	Time-Based	
0527	27-4014.00	SOUND MIXER	8000	Time-Based	
0528	49-2022.03	SOUND TECHNICIAN	6000	Time-Based	
0530	51-4034.00	SPINNER, HAND	6000	Time-Based	
0457	51-4031.03	SPRING COILING MACHINE SET	8000	Time-Based	
0532	51-4081.01	SPRING MAKER	8000	Time-Based	
0533	49-3023.02	SPRING REPAIRER, HAND	8000	Time-Based	
0534	51-4081.01	SPRING-MANUFTRG SET-UP TECH	8000	Time-Based	
0521	27-4011.00	STAGE TECHNICIAN	6000	Time-Based	88-14
0382	27-1021.00	STAINED GLASS ARTIST	8000	Time-Based	
0647	49-2022.05	STATION INSTALLER & REPAIRER	8000	Time-Based	

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM		BULLETIN(S)
0536	51-8021.02	STATIONARY ENGINEER	8000	Time-Based	
0460	47-2152.01	STEAM SERVICE INSPECTOR	8000	Time-Based	
0785	51-5023.07	STEEL-DIE PRINTER	8000	Time-Based	
0463	51-9199.99	STENCIL CUTTER	4000	Time-Based	80-02
0538	51-5022.10	STEREOTYPER	2000	Time-Based	
0467	49-9041.00	STOKER ERECTOR & SERVICER	8000	Time-Based	
0539	51-9195.03	STONE CARVER	6000	Time-Based	
0017	51-4033.02	STONE POLISHER	6000	Time-Based	
0312	51-9071.04	STONE SETTER (Jewelry)	8000	Time-Based	
0542	51-9195.03	STONECUTTER, HAND	6000	Time-Based	
0470	51-9032.04	STONE-LATHE OPERATOR	6000	Time-Based	
0540	47-2022.00	STONEMASON	6000	Time-Based	
0545	47-2111.00	STREET-LIGHT SERVICER	8000	Time-Based	
0726	51-5022.06	STRIPPER (Print & Pub)	10000	Time-Based	
0064	51-5022.06	STRIPPER, LITHOGRAPHIC II	8000	Time-Based	88-18
0669	47-2221.00	STRUCTURAL-STEEL WORKER	6000	Time-Based	
0553	51-8012.00	SUBSTATION OPERATOR	8000	Time-Based	
0366	43-5061.00	SUPERCARGO (Water Trans)	4000	Time-Based	
0478	51-9021.00	SURFACE-PLATE FINISHER	4000	Time-Based	
1051CB	29-2055.00	SURGICAL TECHNOLOGIST	4000	Comp-Based	03-12
0551	17-3031.01	SURVEYOR ASSISTANT, INSTRU	4000	Time-Based	89-04
1069CB	49-9093.00	SURVIVAL EQUIPMENT (PARACHUTE REP	2500	Comp-Based	04-19
0838	37-2011.00	SWIMMING-POOL SERVICER	4000	Time-Based	78-06
0801	51-8012.00	SWITCHBOARD OPERATOR (Utility)	6000	Time-Based	
0558	47-2221.00	TANK SETTER (Petrol Prod)	4000	Time-Based	
0559	51-4111.00	TAP AND DIE MAKER TECHNICIAN	8000	Time-Based	
0561	47-2082.00	TAPER	4000	Time-Based	
0560	49-2097.00	TAPE-RECORDER REPAIRER	8000	Time-Based	
0562	27-1012.00	TAXIDERMIST (Profess & Kin)	6000	Time-Based	
0657	25-9041.00	TEACHER AIDE I	4000	Time-Based	94-01
0552	49-2022.03	TECHNICIAN, SUBMARINE CABLE	4000	Time-Based	
0618	49-2022.03	TELECOMMUNICATIONS TECHNICIAN	8000	Time-Based	91-11
1002	43-5031.00	TELECOMMUNICATOR	8000	Time-Based	86-17
0951	43-9022.00	TELEGRAPHIC-TYPEWRITER OPER	6000	Time-Based	
0565	49-2097.00	TELEVISION & RADIO REP	8000	Time-Based	
1055	43-3071.00	TELLER (Financial)	2000	Time-Based	03-22
0567	51-4062.00	TEMPLATE MAKER	8000	Time-Based	
0123	51-4062.00	TEMPLATE MAKER, EXTRUSION DIE	8000	Time-Based	
0972	47-2053.00	TERRAZZO FINISHER	4000	Time-Based	81-13
0568	47-2053.00	TERRAZZO WORKER	6000	Time-Based	
0482	19-4041.02	TEST ENGINE OPERATOR	4000	Time-Based	
0190	17-3021.00	TEST EQUIPMENT MECHANIC	10000	Time-Based	
0483	51-4041.00	TEST TECH (Profess & Kin)	10000	Time-Based	
0956	19-4041.02	TESTER (Petrol Refin)	6000	Time-Based	77-09
0572	51-9061.04	TESTING & REGULATING TECH	8000	Time-Based	
0489	51-9061.05	THERMOMETER TESTER	2000	Time-Based	
0971	47-3011.00	TILE FINISHER	4000	Time-Based	
0573	47-2044.00	TILE SETTER	6000	Time-Based	
0575	51-9023.00	TINTER (Paint & Varnish)	4000	Time-Based	
0586	51-4111.00	TOOL AND DIE MAKER	8000	Time-Based	
0205	51-4061.00	TOOL BUILDER	8000	Time-Based	
0587	17-3027.00	TOOL DESIGN CHECKER	8000	Time-Based	

RAIS	O*NET/SOC			TYPE OF	
CODE	CODE	OCCUPATIONAL TITLE	TERM	TRAINING BU	JLLETIN(S)
0580	17-2141.00	TOOL DESIGNER	8000	Time-Based	
0582	51-4194.00	TOOL GRINDER I	6000	Time-Based	
0765	51-4194.00	TOOL GRINDER OPERATOR	8000	Time-Based	
0588	51-4081.01	TOOL MACHINE SET-UP OPERAT	6000	Time-Based	
0584	51-4111.00	TOOL MAKER	8000	Time-Based	
0585	51-4111.00	TOOL MAKER, BENCH	8000	Time-Based	
0690	51-4012.00	TOOL PROGRAMMER, NUMERICAL	6000	Time-Based	95-04
0589	49-3031.00	TRACTOR MECHANIC	8000	Time-Based	
0590	49-2092.04	TRANSFORMER REPAIRER	8000	Time-Based	
0592	49-3023.01	TRANSMISSION MECHANIC	4000	Time-Based	78-43
0655	43-5011.00	TRANSPORTATION CLERK	3000	Time-Based	93-15
0847	49-9041.00	TREATMENT PLANT MECHANIC	6000	Time-Based	
0595	37-3013.00	TREE SURGEON	6000	Time-Based	
0607	37-3013.00	TREE TRIMMER (Line Clear)	4000	Time-Based	90-17
0805	51-9061.04	TROUBLE LOCATOR TEST DESK	4000	Time-Based	
0858	49-9051.00	TROUBLE SHOOTER II	6000	Time-Based	
0598	49-3021.00	TRUCK BODY BUILDER	8000	Time-Based	
0014	53-7021.00	TRUCK CRANE OPERATOR	6000	Time-Based	
0980	53-3032.01	TRUCK DRIVER, HEAVY	2000	Time-Based	
0680	47-2061.00	TUCKPOINTER, CLEANER, CAULKER	6000	Time-Based	95-07
1004	29-2071.00	TUMOR REGISTRAR	4000	Time-Based	87-02
0600	49-3023.02	TUNE-UP MECHANIC	4000	Time-Based	
0601	51-8013.01	TURBINE OPERATOR	8000	Time-Based	
1021	51-4034.00	TURRET LATHE SET-UP OPERAT	8000	Time-Based	
1034	49-3023.02	UNDERCAR SPECIALIST	4000	Time-Based	99-18
0097	51-6093.00	UPHOLSTERER	4000	Time-Based	
0606	51-6093.00	UPHOLSTERER, INSIDE	6000	Time-Based	
0492	51-7011.00	VIOLIN MAKER, HAND	8000	Time-Based	
1070CB	49-2094.00	VISUAL IMAGERY INSTRUSION DET	2500	Comp-Based	04-19
0612	51-5023.04	WALLPAPER PRINTER I	8000	Time-Based	
0494	39-3092.00	WARDROBE SUPERVISOR	4000	Time-Based	81-16
0614	51-8031.00	WASTE TREATMENT OPERATOR	4000	Time-Based	
0507	51-8031.00	WASTEWATER-TREATMT- PLT OPER	4000	Time-Based	
0616	49-9064.00	WATCH REPAIRER	8000	Time-Based	
0619	51-8031.00	WATER TREATMENT PLANT OPERATOR	6000	Time-Based	
0001	19-4099.99	WEATHER OBSERVER	4000	Time-Based	80-15
0667	51-5023.03	WEBPRESS OPERATOR	8000	Time-Based	
0620	51-4121.02	WELDER, ARC	8000	Time-Based	
0622	51-4121.02	WELDER, COMBINATION	6000	Time-Based	
0627	51-4121.03	WELDERFITTER	8000	Time-Based	<b>50.45</b>
0945	51-4122.01	WELDING MACHINE OPER, ARC	6000	Time-Based	78-47
0498	17-3029.99	WELDING TECHNICIAN	8000	Time-Based	
0629	47-5021.02	WELL DRILL OPERATOR (Const)	8000	Time-Based	00.22
0544	33-2011.02	WILDLAND FIRE FIGHTER SPECIALIST	2000	Time-Based	88-33
0357	49-9063.03	WIND INSTRUMENT REPAIRER	8000	Time-Based	
0499	17-3021.00	WIND TUNNEL MECHANIC	8000	Time-Based	
0034	11-3051.00	WINE MAKER (Vinous Liquor)	4000	Time-Based	
0501	51-9032.02	WIRE SAWYER (Stonework)	4000	Time-Based	
0504	51-6063.00	WIRE WEAVER, CLOTH	8000	Time-Based	
0633	51-2022.00	WIRER (Office Machines)	4000	Time-Based	
0505	51-7042.02	WOODTURNINGLATHE OPERATO	2000	Time-Based	
0919	51-9061.03	X-RAY EQUIPMENT TESTER	4000	Time-Based	

	RAIS	O*NET/SOC			TYPE OF	
	CODE	CODE	OCCUPATIONAL TITLE	TERM	TRAINING	<b>BULLETIN(S)</b>
ſ	1039	13-1071.01	YOUTH DEVELOPMENT PRACTITIONER	4000	Time-Based	01-01